

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of)	
)	
Amendment of Parts 1, 21, 73, 74 and 101 of the)	WT Docket No. 03-66
Commission's Rules to Facilitate the Provision of Fixed)	RM-10586
and Mobile Broadband Access, Educational and Other)	
Advanced Services in the 2150-2162 and 2500-2690)	
MHz Bands)	
)	
Part 1 of the Commission's Rules - Further Competitive)	WT Docket No. 03-67
Bidding Procedures)	
)	
Amendment of Parts 21 and 74 to Enable Multipoint)	MM Docket No. 97-217
Distribution Service and the Instructional Television)	
Fixed Service to Engage in Fixed Two-Way)	
Transmissions)	
)	
Amendment of Parts 21 and 74 of the Commission's Rules)	WT Docket No. 02-68
With Regard to Licensing in the Multipoint Distribution)	RM-9718
Service and in the Instructional Television Fixed Service)	
for the Gulf of Mexico)	
)	

REPLY COMMENTS OF WCA, NIA AND CTN

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EXECUTIVE SUMMARY

The comments filed in response to the Commission's *Notice of Proposed Rulemaking* reflect substantial agreement on the most critical components of the Coalition Proposal to dramatically revise the Commission's bandplan and associated rules for Multipoint Distribution Service ("MDS") and Instructional Television Fixed Service ("ITFS") spectrum in the 2500-2690 MHz band. The crafting of the Coalition Proposal required the balancing of a variety of competing interests – proponents of Time Division Duplex ("TDD") technology vs. proponents of Frequency Division Duplex ("FDD") technology, emerging MDS broadband providers vs. legacy MDS video providers, ITFS licensees seeking to deploy portable and mobile data services vs. ITFS licensees more interested in preserving existing video operations, rural interest vs. urban interests, etc. At the end of the day, the record confirms that the thousands of hours and substantial resources devoted towards developing consensus were worth the effort -- notwithstanding the expected differences over particulars, it is fair to say that a significant majority within the MDS/ITFS industry concurs that the Coalition Proposal is the best available solution for maximizing use of MDS/ITFS spectrum for new services.

Importantly, there is near-unanimous agreement that the full potential of MDS/ITFS spectrum cannot be realized unless the 2500-2690 MHz band is deinterleaved to provide licensees with large contiguous blocks of spectrum and segregated in a manner that separates spectrum regulated to facilitate low-power low-site operations from spectrum regulated to facilitate high-power, high-site operations. The comments also reveal an overwhelming preference for rules that afford each licensee the flexibility to deploy TDD or FDD technology on any LBS/UBS channel and to freely switch between technologies as marketplace demand evolves.

While two parties have submitted alternative proposals calling for the creation of separate bands reserved exclusively for TDD and for FDD technologies, these proposals are highly flawed and should be rejected. The concept of reserving portions of the 2.5 GHz band exclusively for TDD versus FDD ignores marketplace reality: as the comments in response to the *NPRM* confirm, there is disagreement as to which technology is best suited to meet current marketplace needs, and substantial uncertainty as to what technology mix will be demanded by the marketplace in the future. Limiting TDD and FDD to specific sub-bands thus creates a significant risk that operators on TDD channels will be precluded from utilizing FDD channels in response to marketplace demand, and, conversely, that operators on FDD channels who wish to provide TDD-based service where it is demanded by consumers. This flies in the face of the entire rationale for flexible use. The proponents of segregating TDD from FDD spectrum provide no technical analysis demonstrating that their approach is necessary to mitigate co-channel interference, or that it will even do anything to reduce cochannel interference among non-synchronized systems.

The Coalition Proposal permits both TDD and FDD use of the LBS and UBS by incorporating detailed, practical mechanisms for controlling both cochannel and adjacent channel interference among non-synchronized TDD and FDD systems. The Coalition Proposal's dual mask approach to adjacent channel interference mitigation provides a means for constantly

modifying guardband needs in response to marketplace and technology changes without Commission intervention. As such, it is vastly superior to static guardband requirements, which would inevitably result in usable spectrum laying fallow until Commission rules can adopt to changing circumstances.

In response to concerns expressed by the Commission, WCA, NIA and CTN have reexamined their proposal for an operational emission mask limiting out of band emissions from transmission outside the MBS into the MBS and are proposing a further refinement designed to promote increased use of the LBS and UBS.

The Commission should reject those alternative proposals that would eliminate the MBS entirely and thereby terminate all high-site, high power MDS/ITFS services. These proposals totally disregard the substantial public interest value associated with those services that can be continued in the MBS – indeed, the record shows that high-power, high-site ITFS operations are an extremely efficient vehicle for simultaneous distribution of educational and instructional material to multiple receive locations on a wide area basis. Those opposed to the MBS also give short shrift to the benefits it provides to commercial operators and the fact that the Coalition Proposal provides for future use of the MBS for low-power, cellularized services if the need for high-power, high-site operations ends.

Further, the record demonstrates conclusively that the MBS must be 42 MHz wide in all markets, and that the location of the LBS and UBS channels should be as set forth in the Coalition Proposal. The Coalition specifically structured the size and order of the LBS, MBS and UBS channels to promote economies of scale in the manufacture of MDS/ITFS equipment, preserve existing cochannel and adjacent channel relationships, assure no overlap of Geographic Service Areas (“GSAs”) and provide each MDS/ITFS licensee with sufficient contiguous spectrum with which to provide service even where a licensee of adjacent channels deploys a non-synchronized technology. The large 16.5 MHz wide contiguous blocks proposed by the Coalition will give licensees the flexibility to deploy TDD or FDD technology anywhere in the 2.5 GHz band, since licensees will have ample contiguous spectrum to establish any necessary guardbands. Alternatives that would split a licensee’s 16.5 MHz of cellular low-power spectrum into two non-contiguous blocks (one in the LBS and one in the UBS) could leave licensees with insufficient spectrum to provide services and meet practical requirements for guardband, particularly in the immediate near term before filter technology improves.

The record establishes conclusively that the Coalition Proposal’s transition plan is vastly superior to any of the alternatives advanced thus far, and those who have suggested otherwise either misunderstand the Coalition’s approach or have not taken all relevant issues into account. In particular, Spectrum Market’s extensive critique of the Coalition’s transition plan is based on a misreading of the Coalition Proposal and is patently incorrect – the Coalition Proposal does *not* call for the extensive “daily chains” Spectrum Market incorrectly predicts.

The Commission should not require all MDS/ITFS licensees to transition to the new bandplan by a date certain, even where there is no marketplace demand for them to do so. A

mandatory transition to the new bandplan by a date certain would not serve the public interest, as requiring transition for transition's sake would impose unnecessary costs on licensees and system operators and force the premature (and perhaps totally unnecessary) termination of high-power, high-site services that otherwise could continue without adversely impacting cellular low-power systems. Moreover, the Proponent-driven market-by-market transition procedures avoid the logistical nightmare arising from an uncoordinated, simultaneous nationwide transition of thousands of MDS/ITFS licensees to an entirely new band arrangement. In addition, the proposed transition plan provides more than fair protection to wireless cable operators who may wish to "opt out" of the transition process.

WCA, NIA and CTN have urged the Commission not to make changes in the policies governing ITFS educational use requirements. WCA, NIA and CTN continue to believe that ITFS licensees already have the flexibility they need to use their stations for educational purposes, and that a loosening of the Commission's educational requirements is unnecessary. Moreover, the few who support an increase in the minimum educational use requirements (something the Commission has previously refused to adopt) fail to recognize that such an increase would throw existing ITFS excess capacity lease agreements into disarray, and may also force some ITFS licensees to transmit educational material solely for the sake of meeting the Commission's standards without regard to educational need, and drive prospective system operators to other spectrum rather than lease ITFS excess capacity. And, for legal, economic and public policy reasons, the Commission should reject out of hand the suggestion by a very small number of parties that the Commission invalidate or otherwise interfere with existing spectrum leases.

Lastly, the record confirms the following:

- The Commission should not restrict the ability of CMRS providers, cable system operators or DSL providers to own MDS spectrum or lease MDS/ITFS spectrum, except as required under the cable-MDS cross-ownership ban set forth in Section 613(a) of the Communications Act. The relatively small group of commenting parties who support eligibility restrictions wrongly assumes that MDS/ITFS spectrum will be deployed primarily as a fixed wireless broadband service that will compete directly with cable modem and DSL services, without acknowledging the myriad of other services that MDS/ITFS is authorized to provide under the Commission's flexible use model, and without acknowledging the Commission's belief that MDS/ITFS under the new regulatory regime will likely be deployed for mobile services.
- The Commission should replace the current patchwork quilt of performance requirements imposed on MDS/ITFS licensees with the "substantial service" test that other flexible use licensees are required to meet at renewal time, subject to certain minor modifications to reflect the unique attributes of MDS/ITFS service.

The Commission must afford MDS/ITFS licensees that have not already done so sufficient time to meet its new performance requirements.

- The Commission should refrain from deciding at this juncture how much spectrum in the 2.5 GHz band should be licensed in the Gulf of Mexico. The *NPRM* itself recognized that the Commission has insufficient data on this issue and since nothing has been submitted in response to the *NPRM*, the record does not support any licensing at this time. However, the Commission should proceed with adoption of the rules proposed by WCA, NIA and CTN to govern operation in the Gulf and the land areas near the Gulf to provide land-based licensees with certainty of their rights.
- The Commission should not permit any unlicensed use of the 2.5 GHz band. The comments in response to the *NPRM* are virtually unanimous: the Commission's proposal to permit "underlay" unlicensed operations at 2.5 GHz is premature, given the lack of any evidence that such operations can be deployed without serious risk of interference to licensed services. Not one service provider or vendor indicated any interest in unlicensed underlay use of the band, much less demonstrate that underlay operations could be accomplished on a non-interfering basis. Commenting parties were similarly unenthusiastic about the Commission's proposal to permit unlicensed use of the ITFS white space. Again, not a single party to this proceeding has provided the Commission with one iota of evidence that unlicensed operations will not cause interference to ubiquitous licensed fixed, portable or mobile operations at 2.5 GHz. Nor has any equipment manufacturer given even the slightest indication that it desires to construct devices that could operate on an unlicensed basis in the very limited ITFS white space that is available. Finally, reallocation of 90 MHz of ITFS spectrum for unlicensed use, as suggested by one comment, is beyond the scope of this proceeding and, in any event, poor public policy.
- The Commission should not conduct two-sided auctions of MDS/ITFS spectrum, nor should it require ITFS licensees to pay for licenses won at auction from their own funds. Those who support two-sided auctions have completely failed to address the serious practical problems already noted by WCA, NIA and CTN, and the concept of mandating that ITFS licensees pay for auctioned licenses with their own funds violates the Administrative Procedure Act and otherwise makes no sense.
- The Commission should not limit MDS/ITFS CPE to 2 watts EIRP. A 2 watt limitation would be an arbitrary requirement that unduly restricts the flexibility of equipment designers to make the most efficient use of the 2150-2162 MHz and 2500-2690 MHz bands. Moreover, the concerns which motivated the Commission

to adopt the 2 watt limit for PCS CPE are not pertinent where MDS/ITFS is concerned.

- The Commission should adopt the Coalition Proposal's plan for establishing exclusive GSAs. This concept was endorsed by virtually all commenting parties who addressed the issue. In addition, no objections were made to the Coalition Proposal's call for continued protection of MBS transmission against interference at certain ITFS receive sites located outside of a licensee's new GSA, but within its current PSA. The Coalition has demonstrated that the concerns expressed in the *NPRM* over retaining MBS interference protection to this limited group of receive sites do not justify stripping these receive sites of their existing interference protection, and the MDS/ITFS community agrees. The Commission should also adopt the Coalition Proposal's proposed treatment of grandfathered E and F Group licensees.

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REPLY COMMENTS OF WCA, NIA AND CTN

The Wireless Communications Association International, Inc. ("WCA"), the National ITFS Association ("NIA") and the Catholic Television Network ("CTN"), by their attorneys, hereby submit their consolidated reply to the comments filed in response to the Commission's *Notice of Proposed Rulemaking* ("NPRM") in the captioned matter.¹ NIA and CTN are separately filing joint reply comments addressing the Commission's proposal to allow commercial entities to acquire Instructional Television Fixed Service ("ITFS") licenses.

¹ *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, 18 FCC 6722 (2003) ["NPRM"].

I. INTRODUCTION.

If there is one point on which all of those filing comments in response to the *NPRM* agree, it is that the Commission's rules need a dramatic overhaul before the public can enjoy the fixed, portable and mobile voice and data services Multipoint Distribution Service ("MDS") and the ITFS licensees are authorized to provide.² It is equally evident that there is no single regulatory approach that will make everyone entirely happy.

The Coalition Proposal that led to the adoption of the *NPRM* was the culmination of months of work during which over one hundred entities involved in the MDS/ITFS industry (including MDS and ITFS licensees, system operators, equipment vendors, engineering consultants and the leadership of WCA, NIA and CTN) devoted thousands of hours and substantial financial resources towards the development of a regulatory regime that will permit the most efficient and effective use of the MDS/ITFS spectrum.³ WCA, NIA and CTN confronted head-on a series of issues that have been boiling below the surface as the Commission's spectrum policies have evolved over the past several years, issues that can be

² It is worth reiterating at the outset that this proceeding is *not* about authorizing licensees to provide any services that they are not authorized to provide today; rather, it is about modifying the regulatory regime so that such services can be provided in an efficient, cost-effective manner. This proceeding is, in a word, evolutionary, not revolutionary. That distinction appears lost on a handful of commenters, most notably the New America Foundation and its allies (collectively "NAF"). See Comments of New America Foundation, *et al*, WT Docket No. 03-66 (filed Sept. 9, 2003) ["NAF Comments"].

³ See "A Proposal For Revising The MDS and ITFS Regulatory Regime," Wireless Communications Ass'n Int'l, Nat'l ITFS Ass'n and Catholic Television Network, RM-10586 (filed Oct. 7, 2002) ["Initial Coalition Proposal"]. Subsequent to October 7, 2002, WCA, NIA and CTN submitted two supplements that addressed issues left open in the original white paper and sought to clarify points that apparently had been misunderstood by some parties within the industry. See "First Supplement To 'A Proposal For Revising The MDS And ITFS Regulatory Regime,'" RM-10586 (filed Nov. 14, 2002) ["First Coalition Supplement"]; "Second Supplement To 'A Proposal For Revising The MDS And ITFS Regulatory Regime,'" RM-10586 (filed Feb. 7, 2003) ["Second Coalition Supplement"]. For simplicity's sake, unless the context requires a different meaning, references to the "Coalition Proposal" in these comments should be read to reference all three filings.

traced to the inherent tension between maximizing licensee flexibility and minimizing spectral inefficiencies. The crafting of the Coalition Proposal required the balancing of competing interests – TDD proponents vs. FDD proponents, emerging MDS broadband providers vs. legacy MDS video providers, ITFS licensees seeking to deploy portable and mobile data services vs. ITFS licensees more interested in preserving existing video operations, rural interests vs. urban interests, etc. The end product allows all to move forward on a reasonable basis, albeit not necessarily in the particular manner each participant in the process might prefer. As one commenting party put it:

IPWireless did not agree with every decision reached through the consensus-building process, but IPWireless supported – and continues to support – the Coalition technical proposal, provided it is adopted as a package. The technical rules proposed by the Coalition, if adopted [as a package] without substantial change, will help expedite deployment of advanced wireless services to all Americans via MMDS/ITFS spectrum.⁴

Having carefully reviewed the responses to the *NPRM*, WCA, NIA and CTN remain convinced that the proposals they have advanced should remain the foundation upon which the new regulatory regime is constructed.⁵ Given the genesis of the Coalition Proposal, it comes as no surprise that the suggestions advanced by WCA, NIA and CTN engendered enthusiastic support from commercial interests,⁶ educators,⁷ and the technical community.⁸ Clearly, on the

⁴ Comments of IPWireless, WT Docket No. 03-66, at 2 (filed Sept. 8, 2003) [“IPWireless Comments”].

⁵ See Coalition Proposal; Comments of Wireless Communications Ass’n Int’l, Nat’l ITFS Ass’n and Catholic Television Network, WT Docket No. 03-66 (filed Sept. 8, 2003) [“Coalition Comments”].

⁶ See Comments of BellSouth *et al*, WT Docket No. 03-66 (filed Sept. 8, 2003) [“BellSouth Comments”]; Comments of Earthlink, WT Docket No. 03-66 (filed Sept. 8, 2003) [“EarthLink Comments”]; Comments of George Mason University Instructional Foundation, F Corp. and Michael Kelley Revocable Trust, WT Docket No. 03-66 (filed Sept. 8, 2003) [“GMU Comments”]; Comments of Sprint, WT Docket No. 03-66 (filed Sept. 8, 2003) [“Sprint Comments”]; Reply Comments of Gryphon Wireless, WT Docket No. 03-66 (filed Oct. 22, 2003) [“Gryphon Reply”].

critical components of the Coalition Proposal there is substantial consensus – deinterleaving of the spectrum to provide licensees with large contiguous blocks of spectrum, streamlining the licensing and interference protection rules to promote the deployment of cellular facilities, preserving spectrum for high-power, high-site operations, and adopting performance requirements that reflect the evolving nature of the 2.5 GHz band and fairly afford licensees an opportunity to meet those requirements.

Of course, given the breadth and depth of the changes suggested in the Coalition Proposal, it is also no surprise that some have voiced alternative approaches. By and large, these alternatives were considered and rejected during the process leading up to the filing of the Coalition Proposal. As will be discussed below, adoption of those alternatives generally would

Comments”]; Reply Comments of Blake Twedt and John Dudeck, WT Docket No. 03-66, at 5 (filed Oct. 22, 2003)[“Twedt Reply Comments”].

⁷ See Comments of Alliance for Higher Education, *et al*, WT Docket No. 03-66, at 3 (filed Sept. 8, 2003) [“Comments of 46 ITFS Parties”] (“The ITFS Parties wholeheartedly support the Coalition Proposal.”); Comments of Archdiocese of New York, WT Docket No. 03-66 (filed Sept. 8, 2003)[“New York Archdiocese Comments”]; Comments of Diocese of Brooklyn, WT Docket No. 03-66 (filed Sept. 8, 2003)[“Brooklyn Diocese Comments”]; Comments of Archdiocese of Los Angeles, WT Docket No. 03-66, at 3 (filed Sept. 8, 2003)[“Los Angeles Archdiocese Comments”]; GMU Comments at 4 (“wholeheartedly and unreservedly support” the Coalition Proposal); Comments of Hispanic Information & Telecommunications Network, WT Docket No. 03-66, at 2 (filed Sept. 8, 2003)[“HITN Comments”]; Comments of School Board of Miami-Dade County, Florida, WT Docket No. 03-66, at 1-2 (filed Sept. 8, 2003)[“Miami-Dade Comments”] (“[T]he School Board strongly urges the Commission to adopt the recommendations of the joint filing by [WCA, NIA and CTN] including the proposed bandplan, the plan for transition of the spectrum from the current to the proposed bandplan, and the related technical standards.”); Comments of South Carolina Educational Television Network, WT Docket No. 03-66 (filed Sept. 8, 2003)[“SCETV Comments”].

⁸ See Comments of ComSpec, WT Docket No. 03-66 (filed Sept. 8, 2003)[“ComSpec Comments”]; Comments of Ericsson, WT Docket No. 03-66 (filed Sept. 8, 2003)[“Ericsson Comments”]; Comments of Hardin and Associates, WT Docket No. 03-66 (filed Sept. 8, 2003)[“Hardin Comments”]; Comments of Information Technology Industry Council, WT Docket No. 03-66, at 5 (filed Sept. 8, 2003)[“ITIC Comments”]; Comments of Intel, WT Docket No. 03-66 (filed Sept. 8, 2003)[“Intel Comments”]; Comments of Lucent Technologies, WT Docket No. 03-66 (filed Sept. 8, 2003)[“Lucent Comments”]; Reply Comments of CelPlan Technologies, WT Docket No. 03-66 (filed Oct. 22, 2003)[“CelPlan Reply Comments”]; Reply Comments of California Amplifier, WT Docket No. 03-66, at 1 (filed Oct. 22, 2003)[“CalAmp Reply Comments”]; Reply Comments of SOMA Networks, ET Docket No. 03-66, at 1-2 (filed Oct. 23, 2003)[“SOMA Reply Comments”]; Reply Comments of Axcera, ET Docket No. 03-66, at 2-4 (filed Oct. 22, 2003)[“Axcera Reply Comments”].

undermine the careful balancing of competing interests that WCA, NIA and CTN have accomplished. In some instances, the alternatives stem from misinterpretations of the Coalition Proposal and the underlying concerns can readily be resolved. In other cases, suggestions have been put forth that clearly are designed to elevate the advocate's particular interests above all others, without regard to the adverse impact on the legitimate interests of others. And, unfortunately, a few parties have made transparent efforts to introduce proposals outside the scope of this proceeding, advance political agendas, address private disputes⁹ or to game the new rules in their favor.¹⁰ The remainder of these reply comments will be devoted to addressing the most significant of the alternatives expressed by commenting parties.¹¹

⁹ For example, the ITFS/2.5 GHz Mobile Wireless Engineering & Development Alliance ("IMWED") continues prior attempts to draw the entire MDS/ITFS industry into a dispute one of its members is having relocating a single station in Philadelphia because of its inability to comply with the existing adjacent channel interference protection rules. *See* Comments of IMWED, WT Docket No. 03-66, at 15 (filed Sept. 8, 2003) ["IMWED Comments"]; Comments of ITFS Spectrum Development Alliance, RM-10586, at 5-6 (filed Nov. 21, 2002) ["SDA WTb PN Comments"]. IMWED would have the Commission believe that "the proposals [by WCA, NIA and CTN] do not accommodate a change of high power transmitter site" and characterizes this as "the most important single trap door contained in the White Paper." *See* IMWED Comments at 15. This is nonsense. To the contrary, the Coalition Proposal clearly and unambiguously provides for rules governing the modification of licenses for facilities in the MBS, including relocations. *See* Initial Coalition Proposal at 34-40. Indeed, those proposals would substantially streamline the process of relocating existing facilities and would loosen the interference protection rules to permit relocations that are not permitted under the current rules. Moreover, WCA, NIA and CTN subsequently proposed a change in the adjacent channel interference protection rules that may provide IMWED's member a solution to its problem. *See* Coalition Comments at 72-73 (proposing reduction in the minimum required adjacent channel desired-to-undesired signal ratio applicable to the MBS from 0 dB to -10 dB). Whether all of this assists IMWED's member is beside the point, as the only issue that the Commission should be considering is whether these proposed changes cumulatively advance the public interest. No one has submitted comments suggesting that they do not.

¹⁰ One of the more egregious examples of self-serving advocacy is the comments of Dallas MDS Partners ("Dallas MDS"), which hold the E Group license in Dallas, TX and advises the Commission that "its views are representative of the holders of the E and F MMDS channel groups." *See* Comments of Dallas MDS Partners, WT Docket No. 03-66, at 1 (filed Sept. 8, 2003). Dallas MDS advocates that the Commission merely deinterleave the E and F channel groups and force the adjacent channel holders to modify their operations to avoid interference to low-power operations on the E and F Groups. *See id.* at 4-5. Of course, the record establishes Dallas MDS's transparent misrepresentation as to its constituency, since holders of vast numbers of E and F Group licenses filed in this proceeding and none took the position espoused by Dallas MDS Partners. *See* Coalition Comments; BellSouth Comments; Sprint Comments; Comments of NTELOS, WT Docket No. 03-66, at 1 (filed Sept. 8, 2003) ["NTELOS Comments"]. More importantly, this proposal fails to address the many complexities discussed in the Coalition Proposal associated with freeing the 2.5 GHz band for the wide variety of innovative new commercial and

II. THE BANDPLAN PROPOSED BY WCA, NIA AND CTN, COUPLED WITH THE PROPOSED RULES FOR CONTROLLING HARMFUL INTERFERENCE, MAXIMIZES LICENSEE FLEXIBILITY WHILE REASONABLY LIMITING POTENTIAL INTERFERENCE.

At the core of the Coalition Proposal is a proposed bandplan and associated technical rules that: (i) segregate spectrum regulated to facilitate low-power, low-site operations from spectrum regulated to facilitate high-power, high-site operations; (ii) afford every licensee the flexibility to utilize TDD and/or FDD technology and to switch among technologies in response to evolving marketplace demand and technological advances; and (iii) provide reasonable levels of protection against harmful interference. Although the bandplan and technical rules suggested by the Coalition Proposal drew substantial support from those commenting,¹² some parties have supported one of the alternatives advanced in the *NPRM* or suggested their own variations. WCA, NIA and CTN have previously demonstrated why the alternatives advanced in the *NPRM*

educational services envisioned by the Commission. For example, it would not provide for FDD usage, as the low-power cellular spectrum would be limited to a contiguous 48 MHz. Moreover, it would wreck havoc with other operations in the band. While Dallas MDS suggests that the D and G Group licensees be permitted to convert their usage to low-power cellular, this ignores: (1) the need of many ITFS licensees for at least some continued high-power, high-site spectrum; (2) the cochannel interference that would be suffered from continued high-power, high-site operations in adjacent markets; (3) the adjacent channel interference that would be suffered from continuing high-power, high-site operations on the B and H Group channels (which would continue to be interleaved with the C and D Groups under the Dallas MDS approach; and (4) the adjacent channel interference that would be caused to the B and H Group channels. In short, this transparent attempt to game the process to benefit the holders of just eight of the 31 channels in the band should be rejected out of hand.

¹¹ In the interest of brevity, WCA, NIA and CTN will not attempt to address every single point made by every party. Unfortunately, some comments raised minor, ancillary concerns or make points that are difficult to understand. The fact that WCA, NIA and CTN have not addressed a particular point should not necessarily be interpreted as agreement with that point and, indeed, they oppose any revision to the Coalition Proposal that they have not specifically endorsed.

¹² See, e.g., Ericsson Comments at 3-4; BellSouth Comments at 6-10; Sprint Comments at 4-7; EarthLink Comments at 7; IPWireless Comments at 4-5; Intel Comments at 7; Hardin Comments at 4; ComSpec Comments at 2; Gryphon Reply Comments at 2; CelPlan Reply Comments at 2-5; Twedt Reply Comments at 2; SOMA Reply Comments at 1-2; Axcera Reply Comments at 2-4.

are not viable, and need not repeat that discussion here.¹³ Rather, the remainder of this discussion addresses the new alternatives advanced in response to the *NPRM*.

A. The Commission Should Reject Calls To Set Aside Separate Segments For FDD And TDD Technologies.

The comments reveal an overwhelming preference for rules that afford each licensee the flexibility to deploy TDD or FDD technology on any LBS/UBS channel and to freely switch between technologies as marketplace demands change and technologies evolve.¹⁴ Despite the fact that MDS and ITFS licensees currently enjoy this flexibility, and that the Commission has provided the flexibility to utilize TDD or FDD in a variety of new flexible use services,¹⁵ two

¹³ See Coalition Comments at 25-33. Only the Independent MMDS Licensee Coalition, which purports to represent the “silent majority” of MDS licensees (albeit without identifying a single member), contends that the Commission should place all high-power, high-site operations in the lower portion of the 2.5 GHz band. See Comments of Independent MMDS Licensee Coalition, WT Docket No. 03-66, at 5-6 (filed Sept. 8, 2003)[IMLC Comments]. WCA, NIA and CTN have already demonstrated why segregating all of the cellularized low-power operations in a single portion of the band is spectrally inefficient and need not repeat that argument here. See Coalition Comments at 29-30. What is noteworthy is that the Ad Hoc MMDS Licensee Consortium (“AHMLC”), which submitted comments remarkably similar to the Independent MMDS Licensee Coalition (also calling itself representative of the “silent majority” of MDS licensees without identifying a single member) agrees with WCA, NIA and CTN on the location of the high-power, high-site band. See Comments of Ad Hoc MMDS Licensee Consortium, WT Docket No. 03-66, at 4 (filed Sept. 8, 2003)[“AHMLC Comments”][“[W]e generally support...concentrating high tower, high power operations in the center of the band, freeing the lower and upper portions for low power, cellularized operations.”].

¹⁴ See Coalition Comments at 10-13; Sprint Comments at 5-6; BellSouth Comments; EarthLink Comments at 6-7; Comments of Oklahoma Western Telephone, WT Docket No. 03-66, at 5 (filed Sept. 8, 2003)[“Oklahoma Western Comments”][“It is critical that the Commission adopt technical rules that do not favor one specific technology over another.”]; Hardin Comments at 4 (“The selection of the appropriate technology should be based solely on the business objectives of the operator and the requirements of the market.”); SCETV Comments at 6 (supporting proposal to allow LBS and UBS to be used for either TDD or FDD technology); Miami-Dade Comments at 1-2 (supporting Coalition Proposal bandplan); IPWireless Comments at 20 (“Designating the entire band or large portions of the band for flexible use permits incumbent licensees and lessees to deploy TDD technology in any single channel block, or to deploy FDD in any sufficiently separated pair of channel groups, or even to operate one carrier in TDD mode and another in downlink-only mode associated with the TDD carrier.”); Gryphon Reply Comments at 2-6; CalAmp Reply Comments at 1; Twedt Reply Comments at 2 ; SOMA Reply Comments at 1; Axcera Reply Comments at 2.

¹⁵ See, e.g. *Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)*, 17 FCC Rcd 1022, 1051-52 (2002)[“Lower 700 MHz R&O”]; *Amendment of the Commission’s Rules With Regard to the 3650-3700 MHz Government Transfer Band*, 15 FCC Rcd 20488, 20496 (2000). Indeed, as WCA, NIA and

commenting parties have called for the creation of separate bands reserved exclusively for TDD and for FDD technologies.¹⁶

WCA, NIA and CTN concede that *if* there was certainty that the demand for TDD spectrum relative to FDD spectrum was consistent across the nation, *if* it were reasonable to assume that these demand levels for the two technologies would remain static into the future, and *if* the spectrum was a “green field” devoid of existing licensees that have relied on their current ability under the current rules to deploy TDD or FDD technology on any channel, then perhaps the public interest might be served by adopting a bandplan with specific spectrum reserved for TDD technology and specific spectrum reserved for FDD technology.¹⁷ However, none of these

CTN have previously noted, MDS/ITFS system operators that initially deployed first generation broadband services (which uniformly utilized FDD technology) have been converting to second generation technology that is predominantly TDD. *See* Coalition Comments at 11 n.24.

¹⁶ *See* Comments of Fixed Wireless Holdings, WT Docket No. 03-66, at 5 (filed Sept. 8, 2003)[“Fixed Wireless Comments”](proposing that the 48 MHz in the lower portion of the band and 46 MHz in the upper portion be reserved for FDD use only, and the 96 MHz in the center will be reserved for TDD); Comments of NextNet Wireless, WT Docket No. 03-66, at 4 (filed Sept. 8, 2003)[“NextNet Comments”](proposing establishment of equal spectrum reserves for FDD and TDD, with FDD spectrum in the upper and lower portions of the band and TDD in the middle). While Nokia Inc. has not specifically called for the reservation of spectrum solely for FDD technology, its comments can be read to suggest that the entire band should be reserved for FDD usage, and that TDD should be banned. Nokia’s comments suggest that “establishing formal channel pairings is the best approach to minimizing problems in this band and ensuring a sufficiently predictable interference environment. Without specifying the technologies to be deployed, we believe the Commission should determine if a particular channel is uplink only or downlink only.” Comments of Nokia, WT Docket No. 03-66, at 3 (filed Sept. 8, 2003)[“Nokia Comments”]. Given that TDD technology does not utilize channel pairings, but instead requires that a given channel be used for both upstream and downstream transmissions, it certainly appears that Nokia is attempting to preclude TDD deployments. Given that many system operators have deployed or are well along in the process of deploying TDD technologies in the 2.5 GHz band to provide wireless broadband services, a restriction on deployment of TDD technologies in the band would be contrary to the public interest.

¹⁷ WCA, NIA and CTN say “perhaps” because even if these three criteria could be met, there would still be good reason to adopt the approach advocated in the Coalition Proposal. Those advocating segregated band segments all cite the “need” for guardband between TDD and FDD spectrum as justification and call for the creation of fixed guardbands between the TDD band segment and the FDD band segment. However, as discuss *infra*, a better approach is to establish a spectral mask that will minimize interference between non-synchronized systems and require system operators to meet that mask through their choice of filtering and guardband unless they come to an alternative arrangement (which can involve deployment of the various mitigation techniques that are available to them). In this fashion, no spectrum need be set aside permanently for guardband, and as filtering technology and mitigation techniques improve, less and less spectrum will have to lay fallow.

criteria have been met. To the contrary, there is disagreement as to what technology is best suited to meet current marketplace needs, substantial uncertainty as to what technology mix will be demanded by the marketplace in the future, and current licensees and system operators have deployed, or are in the process of deploying, wireless broadband systems using technologies that would be barred under the segregation proposals because they happen to be on the “wrong” channels.¹⁸

Thus, WCA, NIA and CTN are fundamentally opposed to the similar bandplan proposals advanced by Fixed Wireless Holdings, LLC (“Fixed Wireless”) and NextNet Wireless, Inc. (“NextNet”). These bandplans would reserve approximately one-half the 2.5 GHz band for TDD technologies and one-half for FDD technologies, with the channels in the lower and upper portions of the band available exclusively for FDD technology and those in the center of the band available exclusively for TDD technology.¹⁹ In addition to being fatally flawed by a failure to provide any spectrum for high-power, high-site usage (which is discussed *infra* in Section II.B), adoption of these proposals would have a series of adverse consequences:

- Licensees would be precluded from deploying the technology of their choice. Since, as Fixed Wireless expressly recognizes, TDD technology is optimized for data services while FDD technology is optimized for voice services,²⁰ the likely effect of a Commission technology mandate will be a Commission dictate of permissible service sets. Those who happen to be licensed on the upper and lower portions of the band would be required to deploy FDD technology and likely deploy voice services, while

¹⁸ As Hardin & Associates correctly notes, “there is no dominant technology established within the industry that allows the selection of either a TDD or FDD architecture for this band.” Hardin Comments at 4. As Gryphon Wireless L.L.C. (“Gryphon”) put it, “[o]nly time will tell whether one or the other technology will predominate, and the Commission can best promote the most effective and efficient use of the 2500-2690 MHz band by allowing the marketplace to determine the best mix of TDD and FDD over time.” Gryphon Reply Comments at 3.

¹⁹ See *supra* note 16.

²⁰ See Fixed Wireless Comments at 4. See also Hardin Comments at 4.

those who happen to be licensed in the middle portion of the band would be required to deploy TDD technology and likely deploy TDD services. The result would stand the Commission's flexible use policy on its head.

- A segregated bandplan would preclude licensees from responding to marketplace demand for TDD services relative to FDD services. Even if the marketplace declares one or the other technology the “winner,” one-half of the 2.5 GHz band will remain devoted to a technology the marketplace declares a “loser.” Indeed, complete failure of one technology in the marketplace could lead to one-half of the 2.5 GHz band laying fallow until the Commission can conduct another rulemaking and reverse the damage caused by a segregated bandplan. By contrast, the Coalition Proposal accommodates a dynamic marketplace, in which demand for TDD relative to FDD can ebb and flow free from Commission “command and control” dictates.
- Adoption of the Fixed Wireless/NextNet proposal would undermine licensee and system operator reliance on the flexibility that licensees currently enjoy to deploy TDD or FDD on any channel. Business plans have been developed, spectrum leases and other agreements reached, and investments have been secured on the basis of that flexibility. Indeed, in some cases wireless broadband systems that have been deployed would be forced to terminate operations if the Fixed Wireless/NextNet proposal were adopted. Any licensee that deployed a TDD system on channels in the lower and upper portion of the bands would be required to cease operations, as would any licensee that deployed an FDD system in the center channels.²¹

Not only is segregating TDD from FDD contrary to the Commission's flexible use policy, but it is unnecessary as a technical matter. Both NextNet and Fixed Wireless rely on potential cochannel interference between TDD and FDD systems as justification for segregating TDD from FDD, although neither provides any technical analysis demonstrating that their approach is necessary to mitigate cochannel interference.²² Indeed, both merely rely on a reference in the Initial Coalition Proposal that TDD and FDD co-existence “creates a heightened

²¹ See Gryphon Reply Comments at 2-6.

²² See NextNet Comments at 4, *quoting* Initial Coalition Proposal at 28; Fixed Wireless Comments at 4. Contrary to what Fixed Wireless and NextNet imply, in adopting rules for the lower 700 MHz band the Commission did not mandate the provision of TDD on some channels and FDD on others. See NextNet Comments at 4-5; Fixed Wireless Comments at 5. In fact, any of the lower 700 MHz band channels can be used for TDD or for FDD regardless of whether they are paired or not. See *Lower 700 MHz R&O*, 17 FCC Rcd at 1053-57.

risk of co-channel interference.”²³ However, neither Fixed Wireless nor NextNet address the significant number of techniques that can be utilized to mitigate that interference, short of depriving licensees of the flexibility to deploy the technology of their choice.

Indeed, in the paragraph immediately following the language relied on by Fixed Wireless and NextNet, WCA, NIA and CTN explained:

That is not to say that cochannel interference between FDD and TDD is inevitable, merely that it can occur if system operators do not cooperate with one another. Indeed, WCA’s Technical Task Group believes that there are a wide variety of techniques that can be utilized to mitigate cochannel interference between even the least compatible technologies, including adding beam tilts, modifying antenna orientation, coordinating frequency reuse patterns and even limiting the usage of certain frequencies in border areas. However, there is considerable tension between the desire to minimize additional regulation above and beyond the 47 dBμV/m benchmark and the recognition that one licensee can do considerable damage to another’s system if it does not cooperate. Due to the unique features of the MDS/ITFS band, and the need to accommodate multiple technologies in the band, WCA, NIA and CTN are exploring possible regulatory approaches that will focus on cooperative efforts by affected licensees, but at the same time provide some regulatory “teeth” that offer licensees a modicum of certainty that systems will not be devastated by interference. They will keep the Commission apprised of those efforts.²⁴

True to this commitment to further explore methods for mitigating cochannel interference between non-synchronized technologies, the Second Coalition Supplement proposed that the Commission impose a special cochannel interference protection requirement where non-synchronized technologies are deployed, in addition to the general requirement that licensees restrict their field strength at their 47 dBμV/m service area boundary 1.5 meters above ground

²³ See NextNet Comments at 4, *quoting* Initial Coalition Proposal at 28; Fixed Wireless Comments at 4.

²⁴ Initial Coalition Proposal at 28.

level.²⁵ The substantial benefits of the approach advocated by WCA, NIA and CTN for mitigation of cochannel interference were discussed at length in the Coalition Comments.²⁶ Those benefits were specifically recognized and endorsed by others commenting in response to the *NPRM*.²⁷ Suffice it to say that not one of the parties responding to the *NPRM* has opposed adoption of this approach for controlling cochannel interference between non-synchronized licensees.

Moreover, adoption of the Fixed Wireless/NextNet proposal would not obviate the need to adopt the Coalition Proposal for addressing cochannel interference. Even if all TDD use is segregated in a single band segment as they propose, cochannel interference is still a major threat because the neighboring TDD system operators will not necessarily be transmitting upstream simultaneously or downstream simultaneously. In other words, while segregating TDD and FDD into separate bands does provide some marginal benefit in regulating cochannel interference between FDD systems (assuming that the upstream and downstream bands are mandated), it does absolutely nothing to reduce cochannel interference among TDD systems (and, it must be noted, TDD appears to be the technology of choice among those who are deploying second generation wireless broadband systems now).

Adoption of the Coalition Proposal and allowing licensees the flexibility to utilize any channel in the LBS or UBS for FDD or for TDD technology is also consistent with global

²⁵ See Second Coalition Supplement at 4-6.

²⁶ See Coalition Comments at 41-47.

²⁷ See, e.g., IPWireless Comments at 15; Hardin Comments at 2; ComSpec Comments at 3-4; Sprint Comments at 5-6; CelPlan Reply Comments at 5. EarthLink Comments at 6-7; Hardin Comments at 2; IMWED Comments at 18 (“[T]he sorts of recommendations that are elaborated in the White Paper supplements appear to us to be a good solution to co-channel interference issues.”); CalAmp Reply Comments at 2; Twedt Reply Comments at 2.

harmonization efforts, which even proponents of global harmonization must concede are in a state of flux, at best. The International Telecommunications Union currently is considering (but has not yet adopted) an approach that would recommend (but not require) administrations to utilize one of seven disparate bandplans to promote the implementation of IMT-2000 (which is just a subset of the many services that can be provided under the Commission's flexible use allocation for MDS/ITFS) in the 2.5 GHz band. That process is in a very preliminary stage – the most recent draft revision of Recommendation ITU-R M.1036-1 recognized that “there are a number of open issues: the size of the segments; the arrangement of the segments (e.g. the FDD uplink and downlink direction); the traffic characteristics; the availability of technology.”²⁸

More importantly, the bandplans suggested in the most recent draft revision of Recommendation ITU-R M.1036-1 are intended for interim use only. That document clearly provides that while segregation of TDD and FDD may occur initially, “[i]t is recommended that the frequency arrangements should, to maintain flexibility of deployment, be available for use in either FDD mode, TDD mode, or both, and should not, ideally, be segmented between FDD and TDD modes in paired spectrum except where necessary for technical and regulatory reasons.”²⁹ Since segregation of FDD from TDD is not necessary for technical or regulatory reasons, the

²⁸ *ITU WP 8F Document 8/1023-E, Draft Revision of Recommendation ITU-R M.1036-1: Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications 2000 (IMT-2000) in the bands 806-960 MHz, 1710-2025 MHz, 2110-2200 MHz and 2500-2690 MHz*, Section 6.1.3 (Feb. 28, 2003)[“*ITU Recommendation*”]. Within the ITU, there is also consideration as to “the extent of the use of the bands 2500-2520 MHz and 2670-2690 MHz by the satellite component of IMT-2000.” *Id.* However, the United States has already decided that those bands will not be used domestically for satellite services, and thus concerns over satellite usage of those bands are not relevant here. See *Amendment of Part 2 of the Commission's Rule to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems*, 16 FCC Rcd 17222 (2001)[“*3G First Report and Order*”]. However, this further illustrates how ITU efforts regarding the 2.5 GHz band may not necessarily be applicable to the Commission's actions in this proceeding

²⁹ *ITU Recommendation* at Section 6.3.

Commission should adopt a leadership role in the international community and adopt the Coalition Proposal.³⁰ As Ericsson succinctly put it, “the Coalition’s band plan . . . properly takes into consideration international implications, and will thus help ensure advancement on a global level.”³¹

In short, there is no basis in the record for taking the draconian step of segregating FDD from TDD uses to control cochannel interference. WCA, NIA and CTN have proposed an alternative that provides ample protection against cochannel interference, while allowing licensees to retain their current flexibility to deploy TDD or FDD technology on any channel. This is particularly important in light of the uncertainty in the marketplace as to the appropriate mix of TDD and FDD technologies.

B. The Record Demonstrates A Need To Preserve A 42 MHz Wide Segment In The Center Of The Band For High-Power, High-Site Operations

Several commenting parties have suggested bandplans that lack any spectrum on which high-power, high-site services could be provided.³² Yet, the record establishes beyond

³⁰ As California Amplifier correctly notes, the approaches to FDD/TDD interference mitigation reflected in the Coalition Proposal were not even examined in the European studies to date on the issue. *See* CalAmp Reply Comments at 1. *See also* SOMA Reply Comments at 1-2 (“it is SOMA’s position that expediency of regulatory reform is paramount, as Service Providers and Manufacturers alike are anxious to undertake their business opportunities and thus serve the public with competitive Broadband offerings. In effect, it is SOMA’s opinion that the United States cannot wait for global harmonization, as utilization of this precious spectral resource must take precedence.”).

³¹ Ericsson Comments at 5.

³² *See* Fixed Wireless Comments; NextNet Comments; Comments of Spectrum Market, WT Docket No. 03-66, at 11-13 (filed Sept. 8, 2003) [“Spectrum Market Comments”]; Comments of Grand MMDs Alliance New York F/P Partnership, WT Docket No. 03-66, at 6 (filed Sept. 8, 2003) [“Grand Alliance Comments”]. Motorola urges the Commission to generally require low-power operations across the band, but to permit high-power operations (apparently across the entire band) in rural areas. *See* Motorola Comments at 11. This not only ignores the established ongoing need for high-power, high-site facilities in urban areas, but threatens low-power operations because of the potential for cochannel interference from rural high-power, high-site facilities into cellular base stations in more urban areas. *See, e.g. infra* at Section III.C; Reply Comments of Wireless Communications Ass’n

peradventure a current and future need to set aside spectrum for high-power, high-site video and data services.³³ Indeed, even one of the advocates for forcing all usage to a cellularized low-power infrastructure concedes that “the educational video offerings on ITFS are extensive, and of strong value.”³⁴ Remarkably, those proposing alternative bandplans that lack a set-aside for high-power, high-site services either ignore this issue entirely or pay it such scant attention as to effectively ignore it.

For example, prospective private broker Spectrum Market, LLC (“Spectrum Market”) argues against the preservation of spectrum for high-power, high-site operations by advancing an economic analysis purporting to illustrate that the private market value of the 2.5 GHz band will be greater if the entire band is reserved for cellularized, low-power systems.³⁵ One hardly needs an economist to prove that commercial interests would pay more for the 2.5 GHz band as a whole were there no MBS.³⁶ However, Spectrum Market’s analysis totally ignores the substantial public interest value associated with preserving a vehicle for high-power, high-site operations, as reflected by the Commission’s determination to “preserve the viability of the

Int’l, Nat’l ITFS Ass’n and Catholic Television Network, RM-10586, at 31-34 (filed Nov. 29, 2002)[“Coalition WTB PN Reply Comments”].

³³ See, e.g. Comments of 46 ITFS Parties at 3-4; GMU Comments at 7-12; New York Archdiocese Comments at 1-2; Brooklyn Diocese Comments at 1-2; Los Angeles Archdiocese Comments at 2-3; Hardin Comments at 5; HITN Comments at 8-9; Comments of Atlanta Interfaith Broadcasters, WT Docket No. 03-66, at 16 (filed Sept. 5, 2003)[“AIB Comments”](“There will be a demand for...high-power video services once restructuring of the spectrum is complete and restrictions on use of the service are eased.”); Comments of Illinois Institute of Technology, WT Docket No. 03-66, at 12-17 (filed Sept. 8, 2003)[“IIT Comments”]; Comments of Education Service Center Region 10, WT Docket No. 03-66, at 6-7 (filed Sept. 8, 2003)[“Region 10 Comments”].

³⁴ IMWED Comments at 13.

³⁵ See Spectrum Market Comments at 11-13.

³⁶ WCA, NIA and CTN do not agree with the valuations suggested by Spectrum Market, which are materially flawed in their methodology and conclusions. For example, the valuations presume a level of complexity in completing transitions that results from a misreading of the Coalition Proposal. See *infra* at Section III.A.

incumbent services.”³⁷ While Spectrum Market’s private interests may be advanced by maximizing the commercial value of the spectrum in terms of raw dollars and cents (a part of which Spectrum Market hopes to capture through the facilitation of secondary market transactions), WCA, NIA and CTN believe the public interest benefits of preserving spectrum for high-power, high-site operations must take precedence.

The other proponents for mandating low-power cellular usage of the entire band fare no better. Fixed Wireless, for example, presents its entire rationale for proposing this sea change in MDS/ITFS regulation in a footnote that summarily asserts that such operations are “spectrally inefficient.”³⁸ Similarly, Grand MMDS Alliance New York F/P Partnership (“Grand Alliance”) contends that use of the band for high-power, high-site operations “is both inefficient and of diminishing value” because “the instructional programming that [ITFS] licensees provide also can be offered in a low-power environment, as a conventional Internet service,” while IMWED would have the Commission eliminate any high-power, high-site usage because “one-way video usage is likely to decline in importance.”³⁹

These comments are simply wrong. The record shows that high-power, high-site operations are an extremely efficient vehicle for simultaneous distribution of educational and instructional material to multiple receive locations on a wide area basis and that Internet-

³⁷ *3G First Report and Order*, 16 FCC Rcd at 17223.

³⁸ Fixed Wireless Comments at 5 n.13.

³⁹ Grand Alliance Comments at 6-7; IMWED Comments at 13.

delivered streaming video is not yet an adequate substitute for all ITFS uses.⁴⁰ Indeed, IMWED concedes that:

streaming video – though improving – is not yet ‘broadcast quality,’ and it may take years for cellularized networks to achieve the coverage today afforded by high power ITFS facilities; indeed, in rural areas, high-power facilities may remain the most efficient mode of delivery indefinitely.⁴¹

WCA, NIA and CTN certainly agree that for most ITFS licensees, retention of the MBS is critical as one of the nation’s leading ITFS providers succinctly put it, “[t]here is just no getting around it. For distributing educational programming to a wide audience, broadcast television is far more user friendly, efficient and realistic than the Internet will ever be.”⁴²

Moreover, the record establishes that preservation of some spectrum for high-power, high-site operations benefits commercial interests. For example, WCA, NIA and CTN have previously demonstrated that by preserving spectrum for high-power, high-site operations, the Commission will allow even those small existing analog multichannel video programming distribution (“MVPD”) systems that do not qualify to “opt-out” of a transition to continue (and in most cases enhance) their existing service offerings in a highly efficient matter through digitization of the MBS.⁴³ And, the MBS can serve as a home for the continued provision of

⁴⁰ See, e.g. Coalition Comments at 13-16; GMU Comments at 11-12.

⁴¹ IMWED Comments at 13.

⁴² GMU Comments at 12.

⁴³ See Coalition Comments at 16-17; Coalition WTB PN Reply Comments at 29. For example, the allocation of 42 MHz to the MBS would allow Oklahoma Western Telephone Company (“Oklahoma Western”), which provides video services to 270 customers using seven 2.5 GHz band analog channels, a vehicle to continue providing its services even if the Clayton, OK market were transitioned to the new bandplan without even undertaking digitization. See Oklahoma Western Comments at 1 n.1. However, as discussed *infra* at Section III.C, while the Clayton system’s subscriber base may be small, its potential for causing interference in neighboring markets is not.

high-power, high-site data services that could not be provided over the LBS/UBS under the proposed rules.⁴⁴

Finally, those opposed to the MBS pay scant attention to the provisions in the Coalition Proposal that provide for future usage of the MBS for low-power, cellularized services.⁴⁵ Thus, if those who claim that high-power, high-site operations are headed for extinction prove right, the Coalition Proposal provides mechanisms for the MBS to be used for cellular low-power services without need for a new rulemaking.

⁴⁴ See Comments of Grand Wireless Company – Michigan, WT Docket No. 03-66, at 6 (filed Aug. 26, 2003)[“Grand Wireless Comments”]. Note that Grand Wireless Company, Inc. – Michigan (“Grand Wireless”) appears to incorrectly assume that today’s “supercells” can only operate in the MBS. *See id.* That is not necessarily the case. To the contrary, depending upon their proximity to the licensee’s GSA border, it is certainly possible that UBS supercells can continue operating on their current channels. However, as Grand Wireless correctly notes, the MBS provides a home for such operations where necessary.

⁴⁵ Those provisions for using the MBS as part of a cellularized low-power system previously have been discussed in detail and need not be repeated here. *See* Initial Coalition Proposal at 17; Coalition Comments at 8-10. While IMWED finds these provisions “unsatisfactory” in its view, IMWED’s arguments do not hold water. For example, IMWED apparently believes that licensees will fail to provide the consents necessary for the MBS to be used for upstream transmissions. *See* IMWED Comments at 14 (“[I]f interference consents could lead to the effective roll-out of data services, there would be no need for a comprehensive re-write of the ITFS/MMDS technical rules.”) However, if IMWED is correct and the future usage of ITFS will evolve towards data services offered over low-power cellular services, then it is logical to assume that ITFS licensees will gladly provide the mutual consents necessary for the entire MBS to be used for upstream services. Similarly, while IMWED objects that the Coalition Proposal will leave each licensee with one channel in the MBS that is not contiguous to its LBS/UBS holdings (*see* IMWED Comments at 14), once the licensees in a market agree to the use of the MBS under the LBS/UBS rules, it is fair to assume that they will also engage in channel swaps so as to provide each either with contiguous spectrum (for TDD users) or paired spectrum (for FDD users). *See* Initial Coalition Proposal at 12-13; Coalition Comments at 27 n.52. While IMWED contends that “there is no evidence that a significant number of licensees will be interested in swapping low power channels for high power channels,” the comments reflect that some ITFS licensees are focused on cellular service while others are focused on high-power, high-site service. IMWED Comments at 14. Thus, it is reasonable to presume that those interested in high-power video services will exchange their LBS/UBS channels for MBS channels, and *vice versa*.

C. The Size Of The MBS Must Remain Fixed In All Markets

The record demonstrates conclusively that the MBS must be fixed in size and cannot vary market-by-market without introducing a host of problems.⁴⁶ To reiterate, there are five fundamental reasons for maintaining a fixed MBS:

1. The certainty of a fixed MBS translates directly into less complex, less expensive cellular system equipment, particularly customer equipment. Knowing precisely where the MBS and Transition Bands will be located allows vendors to better filter those potentially interfering signals, while keeping customer equipment size and cost at competitive levels.
2. Any device (whether TDD or FDD) designed to receive the signals of channels reclaimed from the MBS in one market would be highly vulnerable to interference when roaming into other markets. Because the reclaimed channel(s) would not be filtered by the device, when in a roaming market the device would receive any high-power MBS signal transmitted by the local licensee of that particular channel. The result likely will be interference that renders the customer device unusable when roaming. Not only did the vendors participating in WCA's Technical Task Group express a strong reluctance to produce equipment usable only in some markets, but operators have made clear that roaming is a critical requirement and that equipment incapable of being used nationwide is unlikely to be deployed.⁴⁷
3. Market-by-market resizing of the MBS would substantially increase the cost of the downconverters that will have to be installed to receive transmissions within the MBS, as special downconverters would have to be manufactured for each MBS of non-standard size.⁴⁸ Thus, a market-by-market determination of MBS size would not only increase the initial cost of transitioning to the new bandplan, but also would place increased ongoing costs on ITFS licensees who likely will be required to purchase additional downconverters as their MBS systems expand.
4. While reclaimed MBS channels perhaps could be deployed in some markets, those channels could be subject to cochannel interference from high-power, high-site operations within the MBS in neighboring markets.

⁴⁶ See, e.g., Initial Coalition Proposal at 17-18; Coalition Comments at 18-19. See also Hardin Comments at 5-6.

⁴⁷ See *id.*

⁴⁸ See CalAmp Reply Comments at 2.

5. Any channels that could be reclaimed for cellular use on a market-by-market basis could, as a practical matter, not be available for use by FDD systems. Many in the FDD vendor community have indicated that for equipment costs to be competitive, MDS/ITFS FDD systems should utilize a nationwide bandplan with fixed channel separations. As a result, any MBS channels that might be freed up in a given market might not be included in the range of frequencies used by FDD customer equipment.

Despite this analysis, two commenters propose that on a market-by-market basis licensees be allowed to secure additional spectrum in the LBS/UBS in lieu of taking a channel in the MBS (thus shrinking the MBS in the affected market),⁴⁹ while one suggests that the MBS grow in markets where there is a heavy demand for ITFS video programming.⁵⁰ WCA, NIA and CTN certainly appreciate the desire for such flexibility and, as they have previously noted, they made a substantial effort to provide it.⁵¹ The comments submitted by parties seeking a flexible

⁴⁹ See AHMLC Comments at 4-5; Comments of School Board of Broward County, WT Docket No. 03-66, at 11-12 (filed Sept. 8, 2003) [“Broward Comments”]. Indeed, Broward, the licensee of ITFS stations KLC80 and KTZ22, which operate on the B and G Group channels respectively, appears to be asking that the Commission allow it to secure contiguous channels for these two stations that are today separated by as much as 180 MHz. See Broward Comments at 11. Broward does not propose any mechanism by which this could occur, nor does it address the substantial problem that could arise depending on the channels it selects. Nor does Broward address how this can be accomplished without re-introducing overlapping service areas, which have proven to be one of the major impediments to the ubiquitous deployment of service in the 2.5 GHz band. As discussed *infra*, if frequency assignments are altered on a market-by-market basis, it is inevitable that there will be overlapping service areas.

Although IMLC supports placing high-power, high-site operations at the upper portion of the band (a concept which WCA, NIA and CTN discredited in their response to the *NPRM*), it proposes allowing licensees to elect whether to take a channel there or in the low-power segment. See IMLC Comments at 6. Depending on the selections made, the two segments would vary in size from market-to-market. The same arguments previously advanced by WCA, NIA and CTN against a variable MBS are applicable to that approach.

⁵⁰ See IIT Comments at 18. In addition, a group of rural wireless broadband providers contends that “[n]ot every market requires a uniform band plan,” but does not acknowledge, much less refute, the demonstration in the Coalition Proposal to the contrary. See Comments of Consolidated Telcom *et al*, WT Docket No. 03-66, at 8 (filed Sept. 8, 2003) [“Consolidated Telcom Comments”].

⁵¹ See Initial Coalition Proposal at 17-18; Coalition Comments at 18-19.

MBS do not address, much less refute, the reasons why WCA, NIA and CTN ultimately concluded that the MBS must be fixed in size on a nationwide basis.⁵²

D. The Proposed Reservation Of 42 MHz For The MBS Reasonably Meets The Needs Of The MDS/ITFS Community.

Although the proposal to set aside one 6 MHz channel in the MBS for each channel group that can be licensed for ITFS usage was not the subject of significant opposition, two commenting parties have urged the Commission to alter the size of the proposed MBS. Ironically, one wants it shrunk by 12 MHz while the other wants it enlarged by 18 MHz.

Dallas MDS (which won the lottery for the E Group license for Dallas, TX) objects to the allocation of one E and one F Group channel to the MBS.⁵³ It had made the same argument in response to the Wireless Telecommunications Bureau's public notice soliciting comment on the Coalition Proposal ("*WTB Public Notice*"),⁵⁴ and in reply WCA, NIA and CTN explained why the proposal by Dallas MDS to remove channels E4 and F4 from the MBS is fundamentally flawed:

First, as Dallas MDS is well-aware, there are numerous "grandfathered" E and F Group ITFS licensees spread throughout the country – ITFS licensees licensed on E or F Group spectrum prior to the Commission's decision in 1983 to reallocate those groups from ITFS to MDS. Indeed, the table listing current ITFS licensees recently released by the Wireless Telecommunications Bureau in connection with its efforts to verify the Broadband Licensing System demonstrates that there are in

⁵² Indeed, even Leland Stanford Junior University and Northeastern University ("Stanford") recognizes that a market-by-market approach "could result in a patchwork of band plans that may make it difficult for transition to the new plan as a result of varying interference patterns." Stanford University and Northeastern University, WT Docket No. 03-66, at 9 (filed Sept. 8, 2003) ["Stanford Comments"]. Stanford also concedes that "varying band plans from market to market could make it more difficult for an effective secondary market in spectrum." *Id.*

See Dallas MDS Comments at 7.

⁵⁴ "Wireless Telecommunications Bureau Seeks Comment On Proposal To Revise Multichannel Multipoint Distribution Service And The Instructional Television Fixed Service Rules," *Public Notice*, DA 02-2732, RM-10586 (rel. Oct. 17, 2002).

excess of fifty such grandfathered ITFS stations on the E and F Group channels, including stations in such major markets as Chicago, Dallas-Ft. Worth, Las Vegas, Los Angeles, Miami, San Francisco, New York, and Washington. Significantly, Dallas MDS offers no proposal for addressing the migration of those grandfathered ITFS licensees to the MBS absent the establishment of default E and F channels in the MBS.

Second, the logical predicate to the argument advanced by Dallas MDS – that the MBS is only of interest to ITFS licensees – is not true. Contrary to Dallas MDS's assertion, E and F Group MDS licensees have expressed an interest in securing spectrum in the MBS. Indeed, the white paper is supported by such entities as BellSouth, Nucentrix Broadband Networks, Sprint and WorldCom, which collectively hold the vast majority of the licenses for E and F Group MDS stations in the country. Moreover, the filings by several smaller wireless cable video system operators in response to the *Public Notice* certainly illustrate a desire on the part of those E and F Group licensees to continue to operate high-power, high-site facilities. While Section III.D of these reply comments addresses in more detail why the proposed transitional system is not a threat to the continued provision of video services, for present purposes it is worth noting that removal of 12 MHz from the MBS would prove counterproductive for those small video systems which can continue to serve subscribers by migrating their current offerings to digitized facilities operating on the MBS channels.

Third, eliminating channels E4 and F4 from the MBS and relocating them to the UBS as proposed by Dallas MDS would result in a significant impediment to the development of FDD technologies in the band. As proposed by WCA, NIA and CTN, the LBS and UBS are symmetrical, each 66 MHz wide. Were the Dallas MDS approach adopted and channels E4 and F4 moved to locations adjacent to the other channels in those groups, the UBS would be 78 MHz wide and there would be an asymmetry that would unduly complicate the provision of FDD services in the band.⁵⁵

Those arguments are as valid now as when made last year, and Dallas MDS has said nothing to refute them.

In contrast to Dallas MDS's proposal that the MBS be reduced in size, Stanford (which concedes that changing the size of the MBS on a market-by-market basis is not viable) suggests a revised nationwide bandplan that shrinks the LBS, the UBS and the J and K segments in order to

⁵⁵ See Coalition WTB PN Comments at 9-11 (footnotes omitted).

increase the MBS by 18 MHz to a total of 60 MHz (ten 6 MHz channels).⁵⁶ There are several problems with this proposal.

First, reducing the LBS and the UBS by 6 MHz each will impair the utility of the 2.5 GHz band for wireless broadband distribution. Stanford is wrong in suggesting that “[t]he size of the LBS and UBS channel assignments does not appear particularly critical.”⁵⁷ In crafting the Coalition Proposal WCA, NIA and CTN were well-aware of the substantial demand for spectrum that could be utilized for cellularized low-power services (both commercial and educational) and the amount of spectrum devoted to each segment was the subject of careful consideration.⁵⁸ Were the Commission to adopt Stanford’s approach and add 18 MHz to the MBS, it is highly likely that in the vast majority of markets across the country this additional spectrum would lay fallow.⁵⁹ That no other ITFS licensee is seeking additional spectrum in the MBS speaks volumes as to whether WCA, NIA and CTN have provided sufficient spectrum in the MBS. As one ITFS licensee notes, “given current compression technology, as well as secondary market options that would allow ITFS entities with greater demand for MBS spectrum to swap or exchange with other ITFS entities in the market with lesser needs, the size of the MBS set forth in the Coalition Proposal should be sufficient to provide for the continuation of essential high power ITFS

⁵⁶ See Stanford Comments at 10.

⁵⁷ *Id* at 10 n.9.

⁵⁸ See *NPRM*, 18 FCC Rcd at 6735; Motorola Comments at 7.

⁵⁹ Indeed, given the substantial evidence that providing each ITFS licensee with a single channel in the MBS will satisfy current and future needs for high-power, high-site capacity, it is unclear how the Commission would determine the licensee for these additional three channels in each market.

operations, while freeing up substantial spectrum to allow for new low power instructional and commercial services.”⁶⁰

Second, Stanford’s approach undermines an essential component of the Coalition Proposal – that every licensee retains exactly the amount of spectrum for which it currently is licensed.⁶¹ Although Stanford’s proposal is not entirely clear, it appears to take spectrum from some licensees in order to provide the additional ITFS channels in the MBS. That approach would seem to unfairly benefit the recipient of the additional spectrum in the MBS, to the detriment of those licensees that are moving from high-power, high-site operations to cellularized services.

Finally, while Stanford proposes that the J and K segments be reduced from 6 MHz to 3 MHz each, WCA, NIA and CTN have previously demonstrated that the proposed 6 MHz width was carefully chosen to provide interference protection to both the MBS and the LBS/UBS.⁶² Lucent Technologies has confirmed that guardbands of this size are necessary.⁶³ Stanford provides no evidence that the Commission can reduce the size of the J and K segments by one-half without introducing substantial harmful interference (including interference into the MBS that Stanford presumably would want to prevent).

⁶⁰ HITN Comments at 9 n.12.

⁶¹ See Initial Coalition Proposal at 12. The importance of this concept has been emphasized in the responses to the *NPRM*. See, e.g., Hardin Comments at 5.

⁶² See Coalition Comments at 5-6 n.13.

⁶³ See Lucent Comments at 3.

E. Mandatory Guardbands Are Not Necessary To Avoid Adjacent Channel Interference Between Non-Synchronized Technologies.

One of the more difficult issues addressed by the Coalition Proposal and in the *NPRM* is the need to provide for appropriate adjacent channel interference protection when non-synchronized systems are deployed in the same area. WCA, NIA and CTN agree with the Cellular Telecommunications & Internet Association that “[u]nder current technology, TDD and FDD operations would interfere with each other if they are in close proximity, without additional technical measures designed to protect against interference.”⁶⁴ The Telecommunications Industry Association correctly recognizes that “if flexibility is provided for licensees to utilize either FDD or TDD, [OOBE] will have to be reduced to a level that provides reasonable protection to an adjacent channel user.”⁶⁵ That is exactly what the Coalition Proposal mandates: a “dual mask” approach to restricting OOBE and mitigating potential adjacent channel interference where non-synchronized technologies are deployed.⁶⁶

The first component of the dual mask – which requires attenuation of OOBE to $43 + 10 \log (P_{\text{watts}})$ dB outside the relevant frequency block absent consent of the affected licensee – is non-controversial. It is the second component – which requires attenuation of OOBE at base stations by $67 + 10 \log (P_{\text{watts}})$ dB measured 3 MHz beyond the edge of the relevant spectrum

⁶⁴ Comments of Cellular Telecommunications & Internet Ass’n, WT Docket No. 03-66, at 4 (filed Sept. 8, 2003)[“CTIA Comments”].

⁶⁵ Comments of Telecommunications Industry Ass’n, WT Docket No. 03-66, at 3 (filed Sept. 8, 2003)[“TIA Comments”].

⁶⁶ See Coalition Comments at 51-54.

block when non-synchronized technologies are deployed if requested by an affected licensee – that has generated some misunderstandings that led to calls for mandatory guardbands.⁶⁷

This dual mask, and particularly the need for the second component, is discussed in detail in the Coalition Comments, and that discussion need not be repeated in detail here.⁶⁸ However, it should be stressed again that an important objective of the dual mask is to create strong incentives for operators sharing adjacent channel edges to voluntarily coordinate their network designs and deployment when using non-synchronized technologies. It is clear that in many cases, even without additional filtering or guardbands, non-synchronized systems can share an adjacent channel edge without interference if available coordination techniques, such as frequency reuse planning and coordinated tower site selection, are employed on a voluntary basis. As WCA, NIA and CTN have previously noted:

Because operators will be required to provide additional attenuation of OOBE in the absence of a voluntary agreement, the dual mask proposal creates natural incentives on the part of operators to coordinate. By doing so, operators will be able to minimize the need for guardbands (and thus maximize their available usable spectrum) and/or the need for additional filtering at their base stations (thus minimizing capital costs). The dual mask thus also serves the Commission's goal of maximizing efficiency of spectrum use, and supporting efficient deployments. Again, however, in the absence of voluntary coordination, the more restrictive mask provides regulatory certainty in system design.⁶⁹

Significantly, *no party to this proceeding disputes that compliance with the dual mask will permit non-synchronized technologies to be deployed adjacent to one another even in the absence of other coordination techniques.* While TIA contends that this proposal is

⁶⁷ See Second Coalition Supplement at 1-3. The Coalition Proposal suggests a somewhat different CPE dual mask.

⁶⁸ See Coalition Comments at 50-56.

⁶⁹ Coalition Comments at 53-54.

“unworkable,” and Nokia asserts that it is “overly burdensome,” neither disputes that adoption of the Coalition Proposal would mitigate adjacent channel interference, nor does either provide any technical or business rationale to support its negative assessment.⁷⁰

By contrast, the dual mask has received substantial support from the MDS/ITFS industry.⁷¹ As IPWireless put it: “we believe that the Coalition’s proposed interference mitigation scheme provides a sufficiently clear and detailed regulatory framework to facilitate the resolution of interference as operators and manufacturers respond to market forces. This balanced approach is likely to result in the highest and best use of MDS/ITFS spectrum without imposing disadvantages on any of the nascent technologies being developed for use in this band, including especially TDD technologies.”⁷²

Adoption of the proposed dual mask will obviate any need for the Commission to consider suggestions that fixed mandatory guardbands are required between non-synchronized systems in one area.⁷³ Admittedly, given the state of filter technology today, guardbands likely will be required to meet the second component of the dual mask when non-synchronized technologies are deployed, and those guardbands can be substantial in size unless other

⁷⁰ TIA Comments at 3; Nokia Comments at 3. Indeed, Nokia’s position on the dual mask is difficult to square with its statement that “[s]tudies completed or in progress within ITU-R WP8F have shown that sufficient co-existence between adjacent FDD and TDD technologies is only possible with the deployment of additional mitigation techniques.” Nokia Comments at 2 (citations omitted). The dual mask is the most effective technique developed to date, and as discussed herein is far more effective than establishing fixed guardbands.

⁷¹ See Coalition Comments at 48-58; BellSouth Comments at 7 n.12; Sprint Comments at 4-6; ComSpec Comments at 3-4; CelPlan Reply Comments at 2-4; CalAmp Reply Comments at 2; Twedt Reply Comments at 2; SOMA Reply Comments at 2 (“As a BWA Manufacturer, SOMA supports a mask of $43 + 10 \log (P)$ for general equipment certification as well as an exceptional operator-managed mask of $67 + 10 \log (P)$.”).

⁷² IPWireless Comments at 18.

⁷³ See Motorola Comments at 13.

mitigation techniques can be effectively employed. Yet, because each channel group will have 16.5 MHz of contiguous spectrum, and because system operators generally have consolidated multiple contiguous channel groups, spectrum for any required guardbands generally will be available.⁷⁴ Moreover, as filtering technology improves and/or as mitigation techniques evolve, guardband requirements will trend downwards. And, of course, licensees may over time switch from deploying non-synchronized technologies to using synchronized technologies that would obviate any guardband requirements.

In short, the dual mask suggested in the Coalition Proposal provides a mechanism for constantly modifying guardband needs in response to marketplace and technology changes, without Commission intervention. As CelPlan Technologies correctly notes:

[the] dual mask proposed by the Coalition will provide synchronized and non-synchronized systems appropriate protection without undue cost, and allows licensees in non-synchronized situations to recapture the use of any guardband spectrum as filter technology improves over time without need for further Commission action. Indeed, this approach should spur the development of improved filters, as system operators will have every incentive to insist on better filters so that they can recapture any spectrum that would otherwise have to be devoted to guardband.⁷⁵

As such, the dual mask is vastly superior to mandating a particular guardband requirement, which would inevitably result in usable spectrum laying fallow until Commission rules can adapt to changing marketplace conditions and technology.

⁷⁴ Thus, WCA, NIA and CTN certainly agree with Motorola that “large contiguous blocks [of spectrum] would allow the Commission to make spectrum assignments that provide the highest level of technological neutrality and would facilitate the deployment of broadband services” and that the requirement for guardbands “reinforces the need to restructure the 2500-2690 MHz band, eliminate interleaved spectrum and provide licensees large contiguous blocks of spectrum.” Motorola Comments at 11-12, 13.

⁷⁵ CelPlan Reply Comments at 4.

F. The Commission Should Reject Proposals To Alter The Channel Location, Size And Order Proposed By WCA, NIA And CTN.

The location and order of the LBS/UBS channels set forth under the default channelization plan proposed by WCA, NIA and CTN was carefully constructed to preserve, to the greatest extent possible, existing cochannel and adjacent channel relationships, to assure that GSAs not overlap (since the overlap of PSAs is one of the most significant flaws in the current regulatory scheme), and to provide sufficient contiguous spectrum to licensees so that they can provide service even if the licensee of adjacent channels deploys a non-synchronized technology and guardbands are necessary. Certain commenters, however, have proposed bandplan alternatives that do violence to this approach.⁷⁶

The Commission should reject the proposal by AHLMC to restructure the band by moving the E or the F Group to the LBS. Although the AHLMC proposal is confusing at best, it apparently is proposing to move either the E or the F Group from the UBS to the LBS and move one of the A through D Groups from the LBS to the UBS.⁷⁷ Not only is the rationale for this proposal suspect on its face (AHLMC wrongly contends that the entire UBS is devoted to MDS

⁷⁶ In addition, although IPWireless favors the Coalition Proposal, it suggests that if the Commission does not adopt the Coalition bandplan it instead provide each licensee three contiguous channels in a single contiguous segment beginning at 2500 MHz, create a high-power, high-site segment at the top of the band, allow each licensee to elect whether to take a channel in that segment, and then, if for any licensee that opts not to take spectrum in the high-power, high-site segment, provide it with a channel above the initial low-power segment. *See* IPWireless Comments at 9-10. Of course, the flaws in providing just one segment for high-power, high-site and one for low-power cellular services are a matter of record. *See* Coalition Comments at 29-30. In addition, like the proposal by ArrayComm discussed below, this approach fails to maintain consistent cochannel relationships. Moreover, the IPWireless approach is flawed by its suggestion that the Commission take the licenses for spectrum in the high-power, high-site block and reauction that spectrum at the end of a predetermined period of time. *See* IPWireless Comments at 10 nn. 9, 13. For the reasons discussed in Section II.B *supra*, the Commission must preserve a high-power, high-site spectrum segment for at least the foreseeable future and should not be reclaimed. Indeed, adoption of IPWireless' approach would effectively force licensees to choose to take their spectrum in the low-power segment and bring an immediate end to valuable high-power, high-site uses.

⁷⁷ *See* AHLMC Comments at 4.

when, in fact, the G Block, which is held by ITFS licensees, is within the UBS), but it would create new adjacent channel situations and likely disrupt existing relationships. For example, if the D and E Groups were swapped, the E Group would be next to the C Group (with which it today has no relationship) and the D Group would be next to the F Group (with which it today has no relationship). This will prove disruptive, for example, where the licensee of the E and F Group channels is the same (as is often the case) and has deployed or is planning to deploy a TDD system utilizing its contiguous spectrum. A relocation of the E Group to the LBS would prove problematic, particularly if significant guardbands are required because the new neighbor of the E Group and the new neighbor of the F Group deploy non-synchronized channels. In such a case, the licensee of the E and F Group channels could be required to devote more spectrum to guardband than if the E and F Groups remained contiguous.

Alone among all of those commenting in this proceeding, IMWED objects to the proposal by WCA, NIA and CTN to place the G channels in the UBS directly adjacent to the I Group.⁷⁸ Again, in crafting the bandplan, WCA, NIA and CTN sought to maintain existing relationships to the greatest extent possible. What IMWED ignores is that under the current bandplan, a G Group channel is the uppermost 6 MHz channel and is directly adjacent to the I Group. IMWED's complaint that the Coalition Proposal "is intended to put the G group closer to high power radar signals that operate in the region above the end of the 2.5 GHz band" ignores that this is where the G Block is already.⁷⁹ Thus, the bandplan proposed by WCA, NIA and CTN actually maintains the existing placement of the G Group, as compared to the alternative

⁷⁸ See IMWED Comments at 17-18.

⁷⁹ *Id.* at 18.

suggested by IMWED, which unfairly would move the H Group channels adjacent to the I channels and closer to radar systems operating above 2700 MHz.⁸⁰

Meanwhile, Grand Wireless and PACE Telecommunications Consortium of Michigan (“PACE”) propose a channel realignment under which licensees of the A, C, E and G Groups would receive two channels in the Lower Band Segment (“LBS”), one channel in the Upper Band Segment (“UBS”), and one channel in the Middle Band Segment (“MBS”), while licensees in the B, D, and F Groups would receive one channel in the LBS and the MBS and two in the UBS, and the H Group licensee would receive one channel in each of the LBS, the MBS and the UBS.⁸¹ This proposal would result in a highly inefficient bandplan and should be rejected.

The PACE/Grand Wireless proposal would prove satisfactory to neither TDD nor FDD system operators. Of course, TDD systems (whether commercial or educational) would prefer to have all their spectrum in a contiguous block.⁸² Were the PACE/Grand Wireless plan adopted, TDD systems likely would attempt to utilize the 11 MHz of contiguous spectrum in one segment, but the 5.5 MHz in the second segment could very well lie fallow. Particularly if guardbands are required to protect non-synchronized technologies, the remaining usable spectrum would likely be too narrow to justify the costs of incorporating it into the system. However, even that 11

⁸⁰ See Twedt Reply Comments at 5.

⁸¹ See Comments of PACE Telecommunications Consortium of Michigan, WT Docket No. 03-66, at 4-5 (filed Sept. 8, 2003)[“PACE Comments”]; Grand Wireless Comments at 4-6. Neither PACE nor Grand Wireless explain their proposal to unnecessarily add MDS channel H2 to the MBS, leaving the H Group MDS licensee with one channel in each segment.

⁸² See Comments of ArrayComm, Inc., WT Docket No. 03-66, at 3 (filed Sept. 8, 2003)[“ArrayComm Comments”]; Broward Comments at 11-12; Gryphon Reply Comments at 8-9. Although for the reasons set forth *supra* at Section II.C the Commission cannot grant Broward’s request to put all 48 MHz of its spectrum in a contiguous block, that Broward believe such is necessary certainly speaks volumes about the utility of the 5.5 MHz blocks that would be created under the PACE/Grand Wireless proposal.

MHz may not be sufficient spectrum to permit a commercial service, since the TDD system would by definition be non-synchronized with its adjacent channel neighbors and would be required to devote some of that 11 MHz to guardbands given the limitations of current filter technology. Thus, the TDD operator would likely have to acquire access to deploy a viable system, something that should not be necessary under the Coalition Proposal.

Moreover, FDD operators – the purported beneficiaries of the PACE/Grand Wireless proposal – do not fare much better. While there is certainly some interest in the FDD community for asymmetrical services to accommodate the greater need for downstream capacity relative to upstream capacity, the PACE/Grand Wireless proposal would leave one-half of the licensees with twice the spectrum in the upstream direction as in the downstream direction (*i.e.* under their proposal the licensees of the A, C, E and G Groups would have 11 MHz in the LBS and 5.5 MHz in the UBS). Those licensees will have no practical use for the extra upstream capacity and it likely will lay fallow. Moreover, all FDD operators would suffer from the problem that the, 5.5 MHz channel is insufficient in size to provide service and meet any necessary guardband requirements to accommodate neighboring non-synchronized technologies. As one of the world’s leaders in FDD technology acknowledges, affording licensees “large contiguous blocks would allow the Commission to make spectrum assignments that provide the highest level of technological neutrality and would facilitate the deployment of broadband services.”⁸³

In short, the large 16.5 MHz wide contiguous blocks proposed by WCA, NIA and CTN facilitate affording licensees the flexibility to deploy TDD or FDD technology anywhere in the

⁸³ Motorola Comments at 11-12.

2.5 GHz band, since licensees will have ample contiguous spectrum to establish any necessary guardbands.⁸⁴ Alternatives that would split a licensee's 16.5 MHz of cellular low-power spectrum into two non-contiguous blocks (one in the LBS and one in the UBS) could leave licensees with insufficient spectrum to provide services and meet practical requirements for guardband, particularly in the immediate near term before filter technology improves. Moreover, as the *NPRM* recognizes, "especially when using spread-spectrum techniques to avoid interference, service providers can operate more efficiently when they have access to large blocks of contiguous spectrum."⁸⁵ As Hardin & Associates summarized the situation "splitting the available bandwidth to a single licensee into two separate band segments may render the licensee unable to provide any kind of viable operational system."⁸⁶

Finally, ArrayComm advances a new plan under which it appears that each licensee would, at its option, receive either paired spectrum or unpaired spectrum, but would not be required to provide FDD services in the paired band or TDD services in the unpaired band.⁸⁷ ArrayComm does not discuss how this process would occur, but apparently at its conclusion all of those who selected paired bands would have 8.25 MHz on either side of the MBS (assuming that they today have 4 channels), while those selecting unpaired spectrum would have 16.5 MHz

⁸⁴ See *id.* at 13. Particularly if guardbands are required to protect non-synchronized technologies, the remaining usable spectrum would likely be too narrow to justify the costs of incorporating it into the system.⁸⁴

⁸⁵ *NPRM*, 18 FCC Rcd at 6785.

⁸⁶ Hardin Comments at 4.

⁸⁷ See ArrayComm Comments at 6-7.

of contiguous spectrum in either the LBS or the UBS.⁸⁸ While ArrayComm's latest proposal is an improvement on its prior proposal to lock each licensee into FDD or TDD technology in perpetuity, it remains fundamentally flawed.⁸⁹

At the outset, it should be understood that, although this proposal purports to be reducing the need for guardbands to accommodate the use of non-synchronized technologies, it does no such thing. ArrayComm specifically proposed that licensees be free to operate TDD technology in the paired bands or to operate FDD technology in the unpaired bands (and because there would be unpaired bands on either side of the MBS, this would be easy to do).⁹⁰ Thus, adoption of the ArrayComm proposal does not reduce at all the potential for cochannel or adjacent channel interference between non-synchronized technologies. The cochannel and adjacent channel interference protection rules advanced in the Coalition Proposal would still be necessary.⁹¹

⁸⁸ WCA, NIA and CTN are unable to envision a plan that can provide every single licensee its choice of paired or unpaired spectrum and still leave the MBS in the same location (which is a necessity, as discussed *supra*). The ArrayComm proposal requires that an even number of licensees select each option, and thus the last licensee to choose will, in effect, have no choice. Thus, the order in which licensees are allowed to select paired or unpaired spectrum would be of critical importance under the ArrayComm proposal, and its failure to even propose a solution is troubling.

⁸⁹ See Letter from Leonard S. Kolsky to Marlene Dortch, Docket No. 03-66 (dated Aug. 25, 2003) ["Initial ArrayComm Proposal"]. As WCA, NIA and CTN noted in their comments, they are opposed to the initial ArrayComm proposal because it prevents licensees from switching between TDD and FDD once an initial election is made at transition. See Coalition Comments at 11 n.24.

⁹⁰ See Initial ArrayComm Proposal.

⁹¹ Indeed, even if licensees were required to use FDD services in the paired spectrum and TDD in the unpaired spectrum, adoption of the ArrayComm proposal does little good. There will still be potential for adjacent use of non-synchronized technologies at the boundary between the paired and unpaired bands, and at the edge of every channel group in the unpaired band (since disparate TDD systems are always non-synchronized). Moreover, depending on how licensees choose their channels in neighboring markets, significant cochannel interference problems could remain, particularly if some channels are used for TDD in one market and for FDD in the other.

While there would be little benefit to adoption of ArrayComm's proposal, substantial harm would undoubtedly result. First, particularly given the current state of filter technology, those who elect paired spectrum in the hope of providing FDD services on spectrum they own likely will find that the 8.25 MHz channel pairs are insufficient to provide service if adjacent spectrum users deploy TDD technology. The ArrayComm proposal suffers from the same defect as those by Grand Wireless and PACE – it fails to provide sufficient contiguous spectrum.⁹²

Second, ArrayComm's proposal is fatally flawed by its re-introduction of overlapping service areas. The record before the Commission demonstrates that the overlapping of protected service areas ("PSAs") is one of the greatest flaws in the current regulatory scheme, since it makes it impossible for either licensee to effectively provide service within the overlap areas.⁹³ This is why WCA, NIA and CTN proposed that exclusive Geographic Service Areas ("GSAs") be created through codification of the industry's practice of "splitting the football" created by overlapping PSAs.⁹⁴

ArrayComm's latest proposal, by contrast, would re-introduce overlapping service areas within which neither licensee will be able to provide interference-free service. The problem is that all channels in a given market are not fungible. One channel in a market may have a full circular 35 mile radius GSA because no cochannel station is in the vicinity, while other channels may have substantially smaller GSAs because of closely-spaced cochannel stations. If the

⁹² See Gryphon Reply Comments at 6-8.

⁹³ Initial Coalition Proposal at 19-22; *NPRM*, 18 FCC Rcd at 6757-59.

⁹⁴ See Coalition Proposal at App. A; *NPRM*, 18 FCC Rcd at 6757-59.

ArrayComm proposal is adopted and most licensees are relocated to new channels, it is inevitable that overlapping service areas will result.

Perhaps the best way to establish the adverse consequences of ArrayComm's proposal is through a hypothetical illustration.⁹⁵ Assume two markets, Market One and Market Two, that are 50 miles apart. Further assume that the E Group channels are licensed in Market One, but not in Market Two, while the F Group channels are licensed in Market Two, but not in Market One. The licensees of the E Group in Market One and the F Group in Market Two each currently can serve its entire area without risk of cochannel interference and, under the Coalition's proposal would be granted a full circular, 35-mile radius GSA. However, under ArrayComm's plan, depending on the vagaries of how the selection process is structured and how other licensees select as between paired and unpaired spectrum, it is certainly possible that both of these licensees would be assigned the same channels. Were that to occur, low and behold, the problem of overlapping service areas (and the creation of an unserviceable "no man's land") would again plague MDS and ITFS deployments.⁹⁶

In short, adoption of ArrayComm's revised proposal would do far more harm than good. It would have only a marginal beneficial effect on mitigating interference, but would result in the overlapping of service areas that has caused so much of the MDS/ITFS industry's problems to date.

⁹⁵ See also Gryphon Reply Comments at 7-8.

⁹⁶ The comments filed by Hardin & Associates, among others, emphasized the importance of maintaining the existing cochannel relationships as part of any transition. Hardin Comments at 3, 5-6 ("By clearly defining the spectral locations and by keeping these locations consistent across market boundaries, transition plans can be well defined and accurate in their prediction of potential problems or interference.").

III. THE TRANSITION PROCEDURE PROPOSED BY WCA, NIA AND CTN SHOULD BE ADOPTED.

A critical component of the Coalition Proposal is Appendix B of the document, which sets forth the procedure for transitioning from the current bandplan to the new bandplan. The Coalition Comments discuss at length the many benefits of the market-by-market approach WCA, NIA and CTN have advanced, and that discussion need not be repeated here.⁹⁷ The record developed in response to the *NPRM* establishes conclusively that the transition plan set forth in Appendix B is vastly superior to any of the alternatives advanced. As one party put it, “[t]he Coalition Proposal to allow the proponent and market forces to determine the timing and order of market conversions to the new bandplan, while requiring such proponent to assume the cost for the transition of ITFS Licensees, strikes a fair balance between financial realities, business planning, and consumer needs while ensuring that ITFS licensees, those least equipped to assume the cost of the transition are assisted by the proponent in this regard.”⁹⁸ However, a few parties have advocated other approaches, each one of which is fraught with danger.

A. Spectrum Market Has Misread The Coalition Proposal And Grossly Exaggerates The Complexity Of Market-By-Market Transitions.

In its comments, Spectrum Market has proposed that the Commission merely establish a date certain by which all licensees would be required to operate in accordance with the new rules. Spectrum Market asserts that the marketplace-driven transition system proposed by WCA, NIA and CTN is “impractical, unwieldy, difficult and likely impossible of accomplishment.”⁹⁹

⁹⁷ See Coalition Comments at 35-41.

⁹⁸ HITN Comments at 9 n.11. See also SCETV Comments at 6 (“[W]e support the Coalition’s plan for transition.”).

⁹⁹ Spectrum Market Comments at 4.

To support this assertion, Spectrum Market provides the Commission with an analysis that purports to show that an attempt to transition any station in the Washington-New York corridor would require the transition of at least 172 stations licensed to 96 separate licensees stretching from Chesapeake, VA to north of New York City. Indeed, Spectrum Market's supporting analysis seems to suggest that any transition of a market between at least Winston-Salem/Raleigh/Greensboro and Boston would require the transition of all markets in between.¹⁰⁰ WCA, NIA and CTN readily concede that, were that the case, transitions would indeed be quite difficult.

Fortunately, *Spectrum Market's analysis is based on a misreading of the Coalition Proposal and is patently incorrect.* In fact, as will be discussed below, far fewer stations would take place in transitions under the Coalition Proposal than Spectrum Market would have the Commission believe.

The critical language is contained in Appendix B to the Coalition Proposal at pages 12-13. There, WCA, NIA and CTN propose that before a new or modified base station can be deployed at a given location, the following must be parties to a transition:

- a) Every licensee that has not previously been transitioned and that has a TIA that overlaps the GSA in which the contemplated base station will be located; and
- b) every non-transitioned licensee with a TIA to which any of the contemplated facility's transmission antennas will have an unobstructed transmission path calculated assuming receive antenna heights of 9.1 meters above ground level and employing a smooth earth with 4/3 earth curvature propagation model; and

¹⁰⁰ See *id.* at App. 1, p. 7 and Ex. 5 ("It is apparent from the density of GSAs bordering the last included set of overlapping GSAs that this progression will continue and additional licensees will [*sic*] to be included as required participants to the Washington, D.C. market transition process; however, for the purposes of this sample market analysis, the process was terminated after determination of the licensees in the first six sets of overlapping GSAs.").

c) *every non-transitioned licensee with a GSA that overlaps the GSA of a license being transitioned pursuant to a) or b).*

Note the language of “c)” – the Coalition Proposal does not call for the inclusion of every station with a GSA that overlaps any station that is included in the transition, but only calls for the inclusion of stations with GSAs that overlap the GSAs of stations included pursuant to “a)” and “b)”. This is a significant distinction missed by Spectrum Market. WCA, NIA and CTN also separately proposed in the following paragraph that a “Proponent should be permitted, at its sole discretion and at any time, to trigger the transition process with respect to any MDS or ITFS licensee that has a GSA located in whole or part within 150 miles of any portion of its GSA. *Any such transition must also include any license with a GSA overlapping a GSA being transitioned.*” Again, the Coalition Proposal does not call for the transition of every station with a GSA overlapping any other station that is transitioned, but merely calls for the transition of any station with a GSA that overlaps a station that is voluntarily brought into the process. Again, this distinction was missed by Spectrum Market.

The fundamental flaw in the Spectrum Market analysis is evident from its statement that under the Coalition Proposal, “[a]ny ‘transition should . . . include any license with a GSA overlapping a GSA being transitioned.’”¹⁰¹ If this were the case, then it would often be true that

¹⁰¹ Spectrum Market Comments at 4. Spectrum Market cites to Paragraph 7 of the summary of the Coalition Proposal set forth at Appendix C to the *NPRM* as authority for its reading. There, the Commission stated that:

In addition to the above-listed mandatory parties to the transition process, the Coalition argues that a Proponent should be permitted, at its sole discretion and at any time, to trigger the transition process with respect to any MDS or ITFS licensee that has a GSA located in whole or part within 150 miles of any portion of its GSA. *Beyond that, they recommend that any transition should also include any license with a GSA overlapping a GSA being transitioned.*

Spectrum Market is taking the italicized language out of context and applying it too broadly to all transitions, rather than to just a voluntary transition as proposed by the Coalition Proposal.

transitions could involve long daisy chains.¹⁰² However, as the language from the Coalition Proposal quoted above shows, WCA, NIA and CTN never suggested any such thing. To the contrary, the Coalition Proposal was carefully crafted to limit the transition to those who are at risk of causing interference to or suffering interference from the base station being deployed. A deliberate effort was made to avoid the very daisy chains that Spectrum Market wrongly predicts.

To illustrate the point, WCA, NIA and CTN commissioned both Kessler and Gehman Associates and Hardin and Associates to perform studies along the same lines as Spectrum Market's flawed study, but correctly applying the Coalition Proposal. The difference in results is telling. These studies, which are annexed as Attachments A and B, respectively, examine transitions of the Washington, DC and Richmond, VA markets. While Spectrum Market suggests that to transition either of these markets one would need to transition licensees located throughout the entire eastern seaboard from Boston to North Carolina (or more), these studies demonstrate that when the Coalition Proposal is properly applied, the number of licensees that are required to be participants in any transition planning process is substantially smaller and readily manageable. Adding to the ease of transition is a fact ignored by Spectrum Market – a large number of the stations involved have been consolidated through secondary market transactions such that they are leased or owned by one of two system operators who will likely coordinate their deployments and simplify the transition process. Moreover, as is pointed out in these analysis, those licensees who are required to participate in the transition planning process

¹⁰² WCA, NIA and CTN have found several flaws in the Spectrum Market analysis, but need not address them here as Spectrum Market's error in determining the necessary parties to a transition moots the point.

need not necessarily be transitioned. The stations in more distant markets stations may cause so little interference to the transitioned stations or suffer so little interference as a result of a transition that the licensees may agree to forgo mandatory transition.

B. Establishing A Date-Certain Requirement For Transition To The New Bandplan Will Impose Unnecessary Costs On Licensees And System Operators Without Any Concomitant Public Interest Benefit.

Although WCA, NIA and CTN propose and most of those commenting agree that marketplace forces, not a Commission “command and control” mandate, should drive the timing of transitions of markets to the new bandplan,¹⁰³ a handful of parties advocate that the Commission force transitions for their own sake by some date certain. In addition to Spectrum Market, which proposed mandatory transitions by January 2008,¹⁰⁴ rural wireless broadband operator Grand Wireless proposes that the Commission mandate conversions to the new bandplan by a Proponent within fifteen months of the adoption of new rules,¹⁰⁵ Grand Alliance

¹⁰³ See EarthLink Comments at 8; Comments of Teton Wireless Television, WT Docket No. 03-66, at 13-15 (filed Sept. 8, 2003)[“Teton Comments”]; Sprint Comments at 6-7; Broward Comments at 13; SCETV Comments at 5-6; Twedt Reply Comments at 3-4.

¹⁰⁴ See Spectrum Market Comments at 7.

¹⁰⁵ See Grand Wireless Comments at 9-11.

would have transitions mandated “within two to five years,”¹⁰⁶ IIT proposes a maximum of five years to convert,¹⁰⁷ and Adams Telecom calls for mandatory transitions by the end of 2012.¹⁰⁸

WCA, NIA and CTN strongly disagree with the imposition of any mandatory conversion date. Indeed, they have previously demonstrated that a mandatory transition to the new bandplan by a date certain would not serve the public interest, as requiring transition for transition’s sake would impose unnecessary costs on licensees and system operators and force the premature (and perhaps totally unnecessary) termination of high-power, high-site services that otherwise could continue indefinitely without adversely impacting cellular low-power systems.¹⁰⁹ Suffice it to

¹⁰⁶ Grand Alliance Comments at 4. Grand Alliance misunderstands many elements of the Coalition Proposal. For example, Grand Alliance complains that there is no “clear requirement that all licensees participate” and that the Coalition Proposal “does not clearly explain how competing proposals or proponents will be handled.” *Id.* at 9. In fact, the Coalition Proposal is quite clear. Section III.A of Appendix B requires that “[a]ny licensee identified for transition under these policies must be a party to the Transition process.” See Initial Coalition Proposal at App. B, p. 14. Moreover, Coalition Proposal clearly establishes procedures for addressing competing transition plans. See *id.* at 16 n.39.

¹⁰⁷ IIT Comments at 22-23. Although its comments are not entirely clear, it appears that Stanford would mandate that stations either transition within seven years or accept secondary status relative to stations operating in compliance with the new rules, while allowing Proponent-driven transitions in the interim. See Stanford Comments at 18. Of course, all of the arguments previously advanced by WCA, NIA and CTN against date-certain transitions apply with equal force against the Stanford approach.

¹⁰⁸ See Adams Comments at 4. As discussed *infra* at note 117, Adams Telecom’s support for a mandatory transition is difficult to understand given that it clearly wants to continue providing high-power, high-site services on all channels and recognizes that, for all practical purposes, it will be able to do so under the Coalition Proposal. Although Intel does not go so far as to propose that the Commission adopt a date-certain approach, it does cite the lack of any firm deadline by which all licensees must transition as a “weakness.” Intel Comments at 6-7.

¹⁰⁹ See, e.g., Coalition Comments at 36-38; Coalition WTB PN Reply Comments at 12-14. In this regard, the Coalition Proposal is completely consistent with the recommendation by the Spectrum Policy Task Force that the Commission should explore rules that would “afford spectrum users the flexibility to operate at higher power in less congested areas, which are typically rural, so long as higher power operations do not cause interference and do not receive additional interference protection.” *Spectrum Policy Task Force Report*, ET Docket No. 02-135, at 59 (Nov. 2002)[“*SPTF Report*”]. Under the Coalition Proposal’s market-by-market transition plan, rural MVPDs will be permitted to operate for as long as they desire, so long as they do not pose a threat of interference to low power cellular systems.

say that none of those advocating a date-certain transition have provided satisfactory responses to any of the concerns WCA, NIA and CTN have advanced.

However, to respond to Intel's concern that lack of a mandatory transition date would lead to "marketplace uncertainty" that "could increase the risk of investments that require a substantial upfront commitment and whose success requires national risk," it should be reiterated that the Coalition Proposal will lead to far more rapid transitions in markets where advanced technology is ready to be deployed than the alternatives before the Commission. Thus, adoption of the Coalition Proposal should alleviate uncertainty and promote investment, since the long delays associated with voluntary negotiation periods, involuntary negotiation periods, and mandatory transition periods have been eliminated. While marketplace forces may lead to some markets not being transitioned immediately under the Coalition Proposal, the more important consideration is that, assuming the safe harbors set forth in Appendix B are adopted, any market, no matter how large or small, can be ready for new technologies in a matter of months. Indeed, the advantage of the Coalition Proposal from the perspective of the investment community is that capital is expended on transitions only when the marketplace is ready, but once the marketplace is ready, a system operator can move quickly.

Moreover, a mandatory approach to transitions would introduce a logistical nightmare. It is important to recognize that all of the licensees in any market being transitioned and any adjacent market that is sufficiently close that it too must transition will have to cut over to the new bandplan at exactly the same time in order to avoid massive interference amongst themselves. The A Group licensee cannot unilaterally convert to the new bandplan, since it cannot move to its new frequencies until the current occupants (the licensees of channels B1 and

C3) vacate to their new spectrum (which requires others to vacate). Although the function of the Proponent that most commenters focus on is its funding of the ITFS portion of the transition, it is important to remember that the Proponent coordinates the entire process with input from the affected licensees during the Transition Planning Process.¹¹⁰ Without a Proponent to coordinate a transition and develop a Transition Plan, how will the transition of multiple licensees in multiple markets be coordinated to assure that the transition occurs simultaneously? Those advocating a date-certain approach fail to recognize the question, much less provide an answer.

C. Expanding The MVPD “Opt-Out” As Requested By Small Rural Providers Is Unnecessary And Will Preclude The Deployment Of Advanced Wireless Services In Major Markets.

One of the fundamental objectives of the NPRM is to isolate high-power, high-site downstream transmissions from channels used by two-way cellular systems to avoid, among other things, the cochannel interference that those downstream transmissions cause at base

¹¹⁰ Although it is not clear, it appears that Education Service Center Region 10 (“Region 10”) may be calling for the Commission to require that each Proponent fund the digitization of every MBS channel, whether or not such digitization is necessary to allow the ITFS licensees in the relevant markets to continue their level of educational programming. Compare Region 10 Comments at ii (suggesting mandatory digitization in all cases) with *id.* at 12 (suggesting digitization only “if necessary”). If this is what Region 10 is suggesting, WCA, NIA and CTN strongly object. A fundamental objective of the Coalition Proposal is to eliminate unnecessary transition costs and delay, while at the same time assuring that ITFS licensees can continue to provide current levels of high-power, high-site operations. Thus, the Coalition Proposal provides that: “[u]nless otherwise agreed during the Transition Planning Process, it is the obligation of the Proponent, at its cost, to provide each ITFS licensee that intends to continue downstream high-power, high-site educational video programming or data transmission services with one programming track on the MBS channels for each ITFS video programming or data transmission track the licensee is currently transmitting on a simultaneous basis.” Initial Coalition Proposal at App. B, p. 7 (footnote omitted). As addressed more fully in the discussion of Safe Harbor #3, a Proponent should be allowed to meet its obligation to a licensee entitled to multiple ITFS programming tracks in the MBS either by arranging for the licensee to receive multiple 6 MHz channels or by providing digital compression technology that provides the ITFS licensee multiple ITFS video programming or data transmission tracks on a single 6 MHz MBS channel. By taking the former approach, a Proponent can move forward with a transition without the expense or delay of digitization. If a proponent can provide Region 10 with four analog channels in the MBS in each of Ennis and McKinney, TX (the sites of its two stations), Region 10 will be made whole and cannot be heard to complain that it did not receive the gold-plating of digitization.

stations located in neighboring markets.¹¹¹ Throughout the development of the Coalition Proposal, WCA, NIA and CTN understood that the transition to the new bandplan could impose certain inconveniences on wireless cable MVPDs. To mitigate those inconveniences, the Coalition Proposal recommended that the Commission allow MVPDs that serve as little as 5% of the households within their Geographic Service Area (“GSA”) or that have deployed digital technology on more than seven channels to “opt-out” of the transition process.¹¹² Those proposed MVPD opt-out provisions have been supported not only by MVPDs that qualify to opt-out should they choose,¹¹³ but also by a variety of parties that currently operate video systems and would be unable to opt-out under the proposal advanced by WCA, NIA and CTN.¹¹⁴ However, a handful of small MVPD system operators have urged the Commission to extend “opt-out” rights even further.¹¹⁵

At the outset, the positions being espoused by this handful of MVPDs result in large part from misunderstandings of the impact the Coalition Proposal will have on small service

¹¹¹ See *NPRM*, 18 FCC Rcd at 6745-47; Initial Coalition Proposal at 10, 13-14; Coalition WTB PN Reply Comments at 31-33.

¹¹² See Initial Coalition Proposal at App. B, p. 16-18; First Coalition Supplement at 4-5.

¹¹³ See *e.g.* Comments of W.A.T.C.H. TV, WT Docket No. 03-66, at 2-6 (filed Sept. 8, 2003); Comments of Digital TV One, RM-10586, at 2-3 (filed Nov. 21, 2002).

¹¹⁴ See, *e.g.* NTELOS Comments at 1; CNI WTB PN Comments at 2-3; Sprint WTB PN Comments at 3 n.4 (“[W]ith video systems operating today in 55 markets, Sprint is the largest multichannel video programming distributor using MDS/ITFS channels in the country. Nevertheless, Sprint embraces the proposed changes.”); Comments of Nucentrix Broadband Networks, Inc., RM-10586, at 2 (filed Nov. 14, 2002); Comments of BellSouth Corporation and BellSouth Wireless Cable, Inc., RM-10586 (filed Nov. 14, 2002).

¹¹⁵ Comments of Nat’l Telecommunications Cooperative Ass’n, WT Docket No. 03-66, at 3-4 (filed Sept. 8, 2003) [“NTCA Comments”] (seeking ability to continue high power operations on all channels indefinitely); Joint Comments of Adams Telecom, *et al*, WT Docket No. 03-66, at 2 (filed Sept. 8, 2003) (proposing continued operation of MVPD systems until December 31, 2012) [“Adams Comments”].

providers. It will not, as one commenter fears, “effectively end rural carriers’ video services.”¹¹⁶

To the contrary, the Commission should note the following:

- Adoption of the Coalition Proposal will have no adverse impact whatsoever on an MVPD until that MVPD’s market is transitioned. WCA, NIA, and CTN suspect that many of those complaining about the proposal are located sufficiently distant from other licensees that there is little chance they will be transitioned to the new bandplan unless and until they choose to do so themselves. Indeed, Adams Telecom concedes that “most rural video providers would likely never be forced to migrate to a new band plan and to forfeit high-power video capacity because their existing high power operations transmit from remote areas and would cause little, if any, harmful interference to adjacent low-power broadband providers.”¹¹⁷
- Even those rural operators that are sufficiently close to other markets that they could be transitioned may not, in fact, be transitioned until they choose to do so themselves. Although WCA, NIA and CTN have attempted to limit the costs of transitions, they will not be inexpensive and will not be undertaken lightly. As a practical matter, a Proponent is likely not to transition a neighboring market if the Proponent is able to design its network at reasonable cost to avoid interference.
- Even after being transitioned to the new bandplan, many MVPDs and their affiliated licensees will be able to continue operating their current analog systems without making any technical modifications. WCA, NIA and CTN have not proposed to bar the transmission of downstream video programming on any channel, so the only question is whether the system complies with the new rules applicable to the LBS, UBS and Transition Bands. That will depend on the location of the transmission tower relative to the borders of the GSA and the transmission system parameters (antenna height and orientation, beam tilt, EIRP, etc.). However, WCA, NIA and CTN suspect that where an MVPD controls the licensed channels in an isolated rural market, it may be able to continue its existing video operations without modification.
- Even in those cases where there has been a transition and the MVPD’s facilities do not comport with the new technical rules, the MVPD and its affiliates may be able to secure consents from neighboring licensees to such facilities. In every case where WCA, NIA and CTN have proposed a rule designed to protect a licensee against interference, they

¹¹⁶ NTCA Comments at 3-4. *See also* Adams Comments at 7.

¹¹⁷ Adams Comments at 6. As such, WCA, NIA and CTN are at a loss to understand why Adams Telecom would prefer their proposal under which all licensees must transition to the new bandplan by the end of 2012, as compared to the Coalition Proposal that allows an MVPD in a remote area to continue video operations on all channels until it elects to transition.

have also proposed that the intended beneficiary of the rule should have the right to waive those protections.

- Even in those cases where there has been a transition and the MVPD's facilities do not comport with the new technical rules and consents from neighbors are not available, the MVPD and its affiliated licensees will often be able to make relatively minor modifications to their transmission system in order to comply with the new rules. Again, the specific modifications required to comply will have to be determined on a case-by-case basis and will depend on the location of the transmission tower relative to the borders of the GSA and the transmission system parameters (antenna height and orientation, beam tilt, EIRP, etc.). However, it is worth noting that because the primary concern here is the propensity of high-power, high-site downstream transmissions to interfere with base stations in neighboring service areas, the solution will often be as simple as adding beam tilt and/or lowering the height of the transmission antenna so that the MVPD's signals will not reach outside the MVPD's GSA. Note, too, that the Coalition Proposal has specifically proposed that an MVPD who does not qualify to "opt-out" be given additional time in any transition in order to implement changes to its transmission system.¹¹⁸
- Any MVPD that does not qualify to "opt-out," is transitioned, and cannot take advantage of the opportunities presented in the preceding bullet points can digitize its system and provide even more video programming to subscribers utilizing just the channels available in the MBS. While a conversion to digital compression technology is not without cost, the Commission has on other occasions (most famously, the digital television transition) recognized that requiring licensees to adopt digital technology can be an effective mechanism for freeing spectrum for advanced services without any decrease in incumbent service.

Because of these ample avenues by which rural wireless cable systems can continue to provide video programming to their subscribers, the Commission need not consider whether, at this juncture, those systems are providing a valuable public service. However, it is worth noting that virtually all residents of rural areas have access to Direct Broadcast Satellite service from two competing providers (EchoStar and DirecTV), C-band satellite services and, in many cases,

¹¹⁸ See Initial Coalition Proposal at App. B, p. 26.

a wireline cable system.¹¹⁹ While it is claimed that absent wireless cable many rural residents would not have access to local over-the-air broadcasting or other services,¹²⁰ the low penetration rates (below 5%) of those who cannot opt out suggest rather strongly that whatever unique local services they provide are not highly valued by local residents. Indeed, a review of the Commission's records demonstrates without doubt that the systems operated by those complaining about the transition plan proposed by WCA, NIA and CTN are in most cases small and losing subscribers with regularity.¹²¹

All of this brings the discussion back to the reason for the new bandplan in the first place – the need to avoid interference from high-power, high-site systems to the base stations of two-way, low-power cellular systems. Were the continued operation of these systems benign, there would be no need for even one of these systems to make any changes to their designs or operations. But the fact is that they are not benign. It should not be lost on the Commission that, for all of their complaining about the transition plan, *not one of the small MVPDs has even questioned the fundamental premise here – that high-power, high-site systems are prone to cause*

¹¹⁹ See, e.g., *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 17 FCC Rcd 1244, 1273 (2002) (“According to DirecTV, its subscribers are distributed across the continental United States with approximately 50 percent residing in urban counties and 50 percent residing in smaller rural counties. As compared to cable subscribers, DirecTV subscribers are more likely to live in rural areas.”) (footnotes omitted); *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 17 FCC Rcd 26901, 26975 (2002) (stating that as of June 2002, DBS served 20.3% of all multichannel video households, versus .55% for MMDS). As Clarendon Foundation previously noted “[t]here is no true public policy need for promoting wireless cable subscription television service in rural areas. All of these areas can be reached by satellite – without the line-of-sight problems and with much more content.” Comments of Clarendon Foundation, RM-10586, at 3 (filed Nov. 18, 2002).

¹²⁰ See NTCA Comments at 2; Adams Comments at 3.

¹²¹ For example, according to the Section 21.911 reports filed annually by MDS licensees, the system operated by Central Texas Communications in San Saba, TX had just 112 subscribers at year-end 2001, down 41 percent from its 189 subscriber at year-end 1998. No report for 2002 was on file at the Commission's Reference Room.

interference to the base stations of two-way, low-power cellular systems in neighboring areas.

Indeed, Oklahoma Western, an MVPD that serves just 270 subscribers, concedes that “the best way to [reconfigure the band] is to separate low power uses of the spectrum from high power uses in order to promote the most efficient use of the spectrum by consolidating channels into contiguous blocks with a guard band in between.”¹²²

To illustrate the point, WCA commissioned Kessler & Gehman to examine the potential for interference from the MVPD system operated by Teton Wireless Television, Inc. (“Teton”) in Twin Falls, ID to a projected Sprint broadband wireless system in Boise, ID. Teton bases its opposition to the Coalition Proposal on the Spectrum Policy Task Force’s recommendation that the Commission authorize higher power operations in rural areas, *so long as such operations do not pose a threat of interference*.¹²³ As should be clear from their support for a market-by-market transition, WCA, NIA and CTN have no quarrel with that concept. Their quarrel, however, is with Teton’s failure to appreciate the interference risk that its system poses for cellular systems. Citing that Boise is 110 miles from Twin Falls, Teton asserts that operators like it “have little or no possibility of interfering with other operators [and] should not be required to transition the use of their spectrum to new segmented band plans.”¹²⁴ That is simply not true.

In fact, Kessler & Gehman found that *continued operation of Teton’s system in Twin Falls would cause massive interference to a Boise wireless broadband system*. As discussed in more detail in Attachment C, continued operation of the Teton MVPD system will cause material

¹²² Oklahoma Western Comments at 3.

¹²³ See Teton Comments at 9, *citing SPTF Report* at 59 (emphasis added).

¹²⁴ Teton Comments at 9.

interference at over one-third of the likely cellular base stations sites within territory licensed to Sprint. The large areas marked in red on the map accompanying the attached report illustrate graphically where Teton's existing operations will adversely impact cellular service outside Teton's own authorized service area. That map paints a picture worth a thousand words. This should come as no surprise to either Teton or the Commission, since WCA, NIA and CTN have previously demonstrated the potential for interference to other larger markets from continuation of other rural MVPD operations.¹²⁵ And, as demonstrated by the similar study prepared by Hardin and Associates of the impact that the Clayton, OK MVPD system will have in neighboring markets that is annexed as Attachment D, the Teton showing is hardly an aberration.

The irony here is that, although Teton does not recognize it, Teton appears to be eligible to exercise an "opt out" from any transition plan because, according to the information in the Section 21.911 reports filed by its lessor/licensees, Teton appears to serve in excess of 5% of the households in its GSA. As a result, those licensees that lease capacity to Teton in Twin Falls will be excused from any attempt to convert them to the new bandplan.¹²⁶ Thus, the Boise/Twin Falls situation illustrates the fundamental fairness of the Coalition Proposal. First, it establishes the general need to allow Proponents to transition distant systems to the new bandplan in order for cellular, low-power systems to develop free of interference. And, second, it demonstrates

¹²⁵ See Coalition WTB PN Reply Comments at 31-33 (examining interference from Madison, WI to Milwaukee and Chicago and from Socorro, NM to Albuquerque).

¹²⁶ For reasons that are not readily apparent, Teton objects to the provision in the Coalition Proposal under which the MVPD exercises the "opt out" rather than licensees. See Teton Comments at 11. Suffice it to say that since it is the MVPD the rule is designed to protect, it is the MVPD that should be invoking the right. It would make no sense, for example, to allow a licensee that leases capacity to an MVPD but does not itself provide service to exercise the right when the MVPD is either the Proponent or otherwise does not object to the proposed transition. However, the Coalition Proposal is clear that once the MVPD exercises an opt out, it automatically extends to exempt all of that MVPD's lessor/licensees in the market from transitioning. See Initial Coalition Proposal at App. B, p. 17-18.

how far WCA, NIA and CTN have gone to protect MVPDs – those that serve as little as 5% of their market can continue operating, despite the serious interference caused to wireless broadband in other (often much larger) markets. Under the circumstances, it is difficult to understand Teton's complaints.

D. The Role of The Proponent Has Been Properly Structured To Avoid Delay And Undue Expense In Effectuating Transitions.

The Coalition Proposal for transitioning from the old to the new bandplan was modeled in certain respects on the plan used in the highly successful launch of broadband PCS services. However, in crafting the Coalition Proposal, WCA, NIA and CTN recognized that the circumstances here are somewhat different from PCS. In PCS, new auction winners completely displaced existing licenses who were moved to entirely different bands, while here existing licensees are merely rearranging their spectrum holdings within the same band. Thus, modifications to the broadband PCS approach were necessary to effectuate a smooth, fair and quick transition from the current to the new regulatory regime.

The necessity for an expeditious and clearly structured transition process is obvious once consideration is given to the unique circumstances in this band. As discussed above, there will be multiple parties to any transition (the number depending on the extent to which the market is distant from others). If the transition process is not structured properly, any one of these licensees, whether acting with good intent or bad, could derail or substantially delay the transition to the new bandplan and, consequently, the advanced services that the new bandplan supports. Similarly, substantial delays could occur if each licensee is permitted to offer its own version of an ideal transition plan, subject to a decision on the merits by the Commission in order to resolve whose plan is best or most "reasonable." The Commission does not have the

resources to expeditiously resolve these sorts of controversies, which harken back to the comparative hearings that the Commission has long since abandoned. In addition, commercial entities committed to providing advanced services simply will not make the investment necessary to effectuate the transition if their efforts are subject to protracted disputes.

To avoid these sorts of problems, WCA, NIA and CTN agreed to create a framework in which a “Proponent” – the entity in each market that steps up to the plate and agrees to fund the deployment of new ITFS downconverters and the migration of ITFS video programming and data streams to the MBS – can efficiently facilitate the transition process.¹²⁷ The specific role to be played by the Proponent in each transition was the subject of much discussion and debate by WCA, NIA and CTN. Their objectives in crafting the transition process were to assure that it be done quickly, smoothly and fairly, and they established the rights and responsibilities of the Proponent in a manner that accomplishes these broad goals. Simply put, to avoid undue delay the Proponent would have clearly defined rights in effectuating the transition. At the same time, those rights would be constrained where necessary to assure that all licensees are treated fairly (although not necessarily in the manner that each licensee would choose if it had a blank check).

While the vast majority of those commenting on the Coalition Proposal have no objections to the

¹²⁷ MLC objects to the concept that any licensee in a market should be permitted to initiate a transition and instead proposes that “[a] Proponent of a transition should be required to have at least half of the spectrum in a market either licensed, under lease, or consenting to its plan before a transition is triggered.” *See* MMDS Licensee Coalition, RM 10586, at 6 (filed Nov. 14, 2002). It is difficult to square this proposal with MLC’s call for a nationwide transition with each licensee paying its own costs. *See id.* at 2-3. Since MLC believes that all licensees should be required to transition, it is not easy to see the harm in allowing any licensee to commence the process. More importantly, MLC ignores that with the transition to the new bandplan, system operators will be able to provide valuable new services to the public without acquiring half of the spectrum in a market. To the contrary, with the 16.5 MHz afforded in the LBS/UBS for each current four-channel licensee, Time Division Duplex services can be provided. Thus, licensees or operators with just a few channels are likely to serve as Proponents in their own markets. And the restriction MLC proposes does not accommodate the fact that Proponents will often have to transition markets in which they have no channel rights in order to create an interference-free environment for the provision of two-way broadband services in nearby markets.

Proponent concept as envisioned by WCA, NIA and CTN, a small number of parties voiced concerns.

In some cases, these concerns appear to be grounded in fundamental misunderstandings of the role of the Proponent and are easily put to rest. WCA, NIA and CTN note with disappointment that, once again, Illinois Institute of Technology (“IIT”) argues that somehow a Proponent will be able to force a licensee to accept a frequency assignment different from that set forth in the default channel plan.¹²⁸ WCA, NIA and CTN have twice before reassured IIT that every licensee will be entitled to its default channels absent its consent, once in the First Supplement and once in the Coalition WTB PN Reply Comments.¹²⁹ Yet again, WCA, NIA and CTN confirm that absent agreement otherwise a given licensee will receive the specific channels identified in Attachment 1 to Appendix B.¹³⁰

Similarly, IMWED, Stanford, and IIT reiterate the same objections to the Coalition Proposal’s approach to transitions that they advanced in response to the *WTB Public Notice*.¹³¹

¹²⁸ See IIT Comments at 20.

¹²⁹ See First Coalition Supplement at 4 n.12; Coalition WTB PN Reply Comments at 17-18.

¹³⁰ The only exception is that where an ITFS licensee requests more than one program track in the MBS, the Transition Plan may, in the Proponent’s discretion, call for that ITFS licensee to receive in the MBS no more than one 6 MHz channel for each program track requested. Where a Proponent chooses to meet its obligation to the ITFS licensee this way (rather than through digitization), Appendix B calls for the ITFS licensee to receive fewer LBS/UBS and Transition Band channels. However, the choice is entirely up to the ITFS licensee whether to request more than one program track in the MBS. Strangely, Stanford objects to the concept of a default channel plan, but then concedes that such a plan is necessary “for markets that cannot or will not come to agreement.” Stanford Comments at 12. Stanford’s argument appears to be based on the misconception that licensees will not have input into the assignment of channels during the transition process. See *id.* at 12-13. In fact, the Coalition Proposal establishes a Transition Planning Period during which licensees will have ample opportunity to agree upon deviations from the default plan, while the default plan provides for a channel plan, in Stanford’s own words, “for markets that cannot or will not come to agreement.” Thus, WCA, NIA and CTN are at a loss to understand Stanford’s objection.

¹³¹ See IMWED Comments at 16; IIT Comments at 20-22; Stanford Comments at 13-18.

WCA, NIA and CTN fully responded to those objections in their reply comments to the *WTB Public Notice* and need not reiterate their arguments here.¹³² Suffice it to say that if the counterproposals advanced by IMWED, Stanford and IIT are adopted by the Commission, the result would fundamentally compromise the role of the Proponent and create an environment in which multiple MDS and ITFS licensees across a region could suffer inordinate delays in deploying new services at the hands of a single licensee seeking, in the best case, its own narrowly-defined self-interest, and in the worst, greenmail or anti-competitive advantage. This is precisely what plagues the industry today, and what WCA, NIA and CTN have attempted to avoid in structuring the transition regime reflected in Appendix B of the Coalition Proposal.¹³³

IV. THE CURRENT ITFS MINIMUM USAGE REQUIREMENTS SHOULD BE RETAINED.

WCA, NIA and CTN have urged the Commission not to make changes in the policies governing ITFS educational use requirements, including those applicable to new ITFS stations.¹³⁴ Several other parties commented on these requirements, in one case to urge a loosening of educational requirements, and in others to urge greater mandatory educational use. WCA, NIA and CTN continue to believe that the current policies provide the right balance between ensuring legitimate educational use of ITFS stations and providing both certainty and flexibility for a secondary leasing market to develop.¹³⁵

¹³² See Coalition WTB PN Reply Comments at 19-23.

¹³³ See Initial Coalition Proposal at App. B, pp. 1, 19, 21, 27.

¹³⁴ Coalition Comments at 128-32.

¹³⁵ One commenting party, IIT, apparently supporting the notion that there is no need to change the educational use requirement, seems to misinterpret the Coalition Proposal as requiring an increase in the total educational reservation to 25% by “placing one of each group’s channels in the high-power, high-site ‘mid-band.’” IIT Comments at 11. That is not an accurate reading of the Coalition Proposal. While it may well be in some cases that

Atlanta Interfaith Broadcasters, Inc. (“AIB”), an ITFS licensee, urges the Commission to broaden the purpose and permissible use of ITFS so as to parallel the rules for noncommercial educational television stations. AIB argues that “forcing students to watch television in the classroom” should not be required as “essential use.”¹³⁶ WCA, NIA and CTN believe that AIB perhaps misreads the current requirements applicable to ITFS usage, which were liberalized in the *Two-Way Report and Order* so as to permit data and other non-credit course transmissions to qualify as educational use, so long as they “are in furtherance of the educational mission of an accredited public or private school, college or university, or other eligible institution, offering courses to enrolled students.”¹³⁷ WCA, NIA and CTN continue to believe that the current standard provides adequate flexibility for ITFS licensees in using their stations for educational purposes, and that no further liberalization is appropriate. WCA, NIA and CTN also believe that, given AIB’s description of its services, it should have no difficulty satisfying the existing standards.

A few others urge that educational use requirements should be increased. Stanford argues that the FCC should “raise the level of commitment” required of ITFS licensees, but does not specifically state what that level should be.¹³⁸ IMWED appears to urge the FCC to go back

the MBS capacity of an ITFS station will be used, and data, for only educational services, there is no such requirement. WCA, NIA and CTN expect that commercial video operations will continue in the MBS in many instances for some time to come. Conversely, WCA, NIA and CTN expect that considerable educational services will be provided in the LBS and UBS. Thus, there is no intention that the MBS become the “educational reserve” for ITFS.

¹³⁶ AIB Comments at 2, 11-14, 15.

¹³⁷ *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmission*, 13 FCC Rcd 19112, 19154 (1998)(citations omitted)[“*Two-Way R&O*”].

¹³⁸ Stanford Comments at 5-6.

to a compromise statement developed by ITFS licensees and wireless industry representatives more than five years ago, which sought a minimum 5% educational reservation, but with the right of the ITFS licensee to reclaim a further 5% of capacity annually, up to an ultimate total of 25%.¹³⁹ NAF argues that ITFS licensees should be required to use their spectrum “primarily” for educational purposes, and, apparently referring to the same compromise statement, apparently wants the Commission to adopt the 25% requirement.¹⁴⁰

WCA, NIA and CTN have carefully considered whether the educational use requirements for ITFS should be increased, and have concluded that no changes should be made to the Commission’s existing requirements.¹⁴¹ Those who promote an increase in the minimum educational use requirements fail to recognize that such an increase would throw existing ITFS excess capacity lease agreements into disarray. Changes in the existing requirements may also force some ITFS licensees to transmit educational material solely for the sake of meeting the Commission’s standards without regard to educational need, and drive prospective system operators to other spectrum rather than lease ITFS excess capacity.

Moreover, after considerable comment and debate, the Commission has already specifically declined to adopt the 25% reservation approach, stating in the 1998 *Two-Way Report and Order* that:

In light of ... the broad range of educational uses to which different ITFS licensees will seek to devote their channels, it is not a simple matter to arrive at a “one size fits all” approach towards minimum ITFS educational usage

¹³⁹ IMWED Comments at 8-10.

¹⁴⁰ NAF Comments at 38-39.

¹⁴¹ Coalition Comments at 128-32.

requirements and reservation of spectrum solely for educational purposes... Therefore, because we seek to maximize the flexibility of educators ... to design systems which best meet their varied needs, we will adopt ITFS excess capacity leasing rules which best promote this flexibility while at the same time safeguarding the primary educational purpose of the ITFS spectrum allocation. After a careful review of the comments ..., we decide that these goals are best harmonized where digital transmissions are utilized by retaining the current 20 hours per channel per week educational usage requirements, adopting the *Joint Statement's* proposed absolute reservation of a minimum of 5% of an ITFS station's capacity for instructional purposes only, and eliminating requirements setting aside capacity for ready recapture by ITFS licensees.¹⁴²

IMWED, Stanford and NAF do not provide any basis for revisiting this careful balance already made by the Commission.

V. THE COMMISSION SHOULD NOT RESTRICT THE ABILITY OF CMRS PROVIDERS, CABLE SYSTEM OPERATORS OR DSL PROVIDERS TO OWN MDS SPECTRUM OR LEASE MDS/ITFS SPECTRUM.

As discussed in the Coalition Comments, the Commission's own precedent and other factors militate strongly in favor of an open eligibility policy for ownership of MDS licenses and leasing of MDS/ITFS spectrum,¹⁴³ subject to any restrictions required under the cable-MDS cross-ownership ban set forth in Section 613(a) of the Communications Act (47 U.S.C. § 543(a)).¹⁴⁴ The Commission confirmed as much in its recent decision to adopt an open eligibility policy for Advanced Wireless Services ("AWS") licenses in the 1710-1755/2100-2155

¹⁴² *Two-Way R&O*, 13 FCC Rcd at 19159 (footnotes omitted).

¹⁴³ The issue of "open eligibility" here is to be distinguished from the issue of eligibility to hold ITFS licenses, which is now restricted to nonprofit, educational entities. This joint filing does not take a position on whether eligibility to hold ITFS licenses should be changed. In a separate filing, however, CTN and NIA argue that current ITFS licensing eligibility requirements should be maintained.

¹⁴⁴ See Coalition Comments at 118-128. Section 613(a) generally forbids cable ownership of MDS licenses with PSAs that overlap the cable franchise area. The ban does not apply where (1) the Commission determines that cable operator's franchise area are able to obtain video programming, or (2) the cable operator is subject to effective competition.

MHz bands,¹⁴⁵ and otherwise has repeatedly accorded open eligibility to flexible use spectrum regulated under Part 27 and other Commission rules.¹⁴⁶ Commission precedent also establishes that eligibility restrictions should be imposed only where there is a “compelling” showing that open eligibility will create a significant likelihood of substantial competitive harm in specific markets, and only when eligibility restrictions are an effective way to address such harm.¹⁴⁷ No such showing is possible with respect to the 2.5 GHz band, since licensees in the new MDS/ITFS regulatory regime will have both the legal authority and ability to provide *any* service in any market at any time.¹⁴⁸ Finally, if the Commission is correct in assuming that MDS/ITFS spectrum “will be largely used as a mobile voice and data service,”¹⁴⁹ then the case for open eligibility becomes overwhelming – the Commission’s most recent annual *CMRS Competition Report* reaffirms that by any standard the CMRS industry is highly competitive and that eligibility restrictions for MDS/ITFS therefore are unnecessary to preserve competition in mobile voice or data services.¹⁵⁰

¹⁴⁵ See “FCC Adopts Third Generation (‘3G’) Rules Making 90 MHz of Spectrum Available for Broadband and Advanced Wireless Services,” *Federal Communications Commission News Release* (Oct. 16, 2003).

¹⁴⁶ See Coalition Comments at 118-119. In addition to the 1710-1755/2110-2155 MHz band, the Commission has adopted open eligibility for WCS spectrum, the lower and upper 700 MHz bands, and the 27 MHz of “government transfer” spectrum in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz and 2385-2390 MHz bands. Similarly, no such restrictions are imposed on licensees in the 24 GHz band, the 28 and 31 GHz bands (LMDS), the 39 GHz band, or on bidders for rural cellular licenses recently made available through auction.

¹⁴⁷ See *Id.* at 120, citing *NPRM*, 18 FCC Rcd at 6773-74.

¹⁴⁸ *Id.* at 120-21.

¹⁴⁹ *NPRM*, 18 FCC Rcd at 6774-75.

¹⁵⁰ See Coalition Comments et 121-122.

Significantly, only a relatively small group of parties has recommended that the Commission adopt new eligibility restrictions for ownership of MDS licenses or leasing of MDS/ITFS spectrum. In so doing, however, those parties each make the same fundamental error, *i.e.*, they assume that MDS/ITFS spectrum will be deployed primarily as a fixed wireless broadband service that will compete directly with cable modem and DSL services, without acknowledging the myriad of other services that MDS/ITFS is authorized to provide under the Commission's flexible use model. Teton Wireless, for example, focuses its entire analysis of the cross-ownership issue on competition between fixed wireless broadband and cable modem/DSL service.¹⁵¹ Similarly, IPWireless "expects that the MMDS/ITFS spectrum is most likely to be used for the provision of broadband services in competition with DSL and cable modem services," and that "allowing open eligibility to the incumbent local exchange carriers and cable operators may result in delays in putting the MMDS/ITFS spectrum into use as the incumbent broadband service providers seek to protect their market power."¹⁵² Earthlink, too, contends that "[t]he Commission's rules in this proceeding should be designed to promote the use of MDS and ITFS spectrum as a viable broadband "pipe" to residential and business consumers," and that it therefore is appropriate for the Commission to limit or prohibit ownership by cable operators and incumbent local exchange carriers (ILECs) of MDS and ITFS spectrum."¹⁵³

¹⁵¹ See Teton Comments at 3 ("Teton provides fixed two-way wireless broadband Internet access service to the residents of Missoula, Montana and Idaho Falls, Idaho in competition with local digital subscriber line ("DSL") and cable companies."); *id.* at 6 ("[C]able companies and DSL providers had a virtual monopoly or duopoly before Teton launched its Internet access service. Given this, Teton believes that the Commission should refrain from opening eligibility for MDS spectrum to cable and DSL interests.").

¹⁵² IPWireless Comments at 14.

¹⁵³ Earthlink Comments at 16. See also Grand Wireless Comments at 2 ("Since wireless represents a competitive force, cable and DSL with their substantial financial power may see their own wireless presence as a means to

Ironically, Teton and IPWireless undermine their own case by conceding that *they have no marketplace data which supports their contention that eligibility restrictions are necessary to preserve competition among broadband services*.¹⁵⁴ Courts have previously determined that such speculation is insufficient to justify eligibility restrictions on wireless services, and the Commission should hold no differently here.¹⁵⁵ More important, the arguments against open eligibility fail because they take no account of the flexible use available to MDS/ITFS licensees or the likelihood that MDS/ITFS spectrum will be deployed for *mobile* services. Indeed, it is odd that IPWireless should give short shrift to the Commission's views on the mobility issue surely IPWireless has not forgotten that the Commission cited IPWireless' technology in support of its decision to add a mobile allocation for MDS/ITFS at 2500-2690 MHz:

[W]e note that there is support for potentially using this spectrum for mobile services. Further, IPW has developed and is testing technology for portable data services that it claims can operate under existing ITFS/MMDS service rules . . . without disrupting the provision of fixed services in the 2500-2690 MHz band. The addition of a mobile allocation will facilitate the introduction of these types of services and will provide the flexibility for introducing other mobile allocations in the future, thereby encouraging technology development and investment.¹⁵⁶

protect their existing business."); Ad Hoc MMDS Licensee Consortium at 21 ("[T]he ITFS/MDS band has the potential to emerge as a true competitor to cable and ILEC DSL broadband delivery systems. To avoid having it be snuffed out by acquisition by potential competitors, the current restrictions on cable/MDS ownership should be maintained and, indeed, expanded."); PACE Comments at 2.

¹⁵⁴ See IPWireless Comments at 15 (stating that "IPWireless is not able to provide data and analysis" on the cross-ownership issue); Teton Comments at 7 n.11 ("Given the relative newness of Teton's services, it would be difficult for Teton to provide useful market share information as the Commission requests.").

¹⁵⁵ See *Cincinnati Bell Telephone Co. v. FCC*, 69 F.3d 752, 764 (6th Cir. 1995) ("[W]hile avoiding excessive concentration of licenses certainly is a permissible goal under the Communications Act, simply precluding a class of potential licensees from obtaining licenses (without a supported economic justification for doing so) solves the problem arbitrarily.").

¹⁵⁶ *3G First Report and Order*, 16 FCC Rcd at 17236 (footnotes omitted).

Furthermore, the comments filed by several of the largest manufacturers of mobile equipment buttress the assumption that MDS/ITFS spectrum will likely be deployed for mobile services, a market which is already highly competitive. Motorola, for instance, states that “[t]he 2500-2690 MHz spectrum is well suited for mobile operations, including mobile broadband services,” and that the suitability of the spectrum for that purpose “is likely to lead to significant use of this band for a range of services.”¹⁵⁷ Similarly, Nokia states that the Coalition bandplan “represents a positive step towards making [the 2.5 GHz band] usable for advanced mobile services, such as third-generation (‘3G’) services that can deliver mobile voice and high-speed data.”¹⁵⁸ Finally, Ericsson recommends that the Commission permit aggregation of MDS/ITFS service areas to “[ensure] that development of AWS in this band is not hampered, especially in rural areas,” and that the Commission generally adopt “a regulatory approach for AWS in the 2.5 GHz band that is similar to its PCS service rules.”¹⁵⁹ Even NTELOS, which provides both wireless cable and digital PCS service in large and rural markets in the state of Virginia, supports the Coalition’s proposed bandplan because it restructures the spectrum to support “new technologies for nomadic and mobile data services.”¹⁶⁰

¹⁵⁷ Motorola Comments at 7.

¹⁵⁸ Nokia Comments at 1.

¹⁵⁹ Ericsson Comments at 7, 8.

¹⁶⁰ NTELOS Comments at 2. *See also* ComSpec Comments at 4 (“[T]he Coalition Proposal provides a solid plan which accommodates both existing incumbent operations and allows flexible evolution of the band to support the new generation of fixed, nomadic and mobile broadband wireless services.”); Intel Comments at 5 (“The 2500 to 2690 [MHz] band could be used to provide additional wireless broadband services that could both compete with and complement Wi-Fi and other broadband services.”).

In sum, there simply is no evidence that any non-statutory eligibility restrictions for MDS/ITFS spectrum are necessary or prudent. As the Commission is well aware, it is the obsolescence of its current regulatory scheme, not the absence of eligibility restrictions, which has restrained the deployment of MDS/ITFS for broadband and other new services. The Commission can and should adopt open eligibility for MDS/ITFS spectrum, as it has done or proposed to do for all of the other flexible use bands discussed above.

VI. THE COMMISSION SHOULD REJECT SUGGESTIONS THAT IT INVALIDATE OR OTHERWISE INTERFERE WITH EXISTING LEASES.

The *NPRM* did not suggest that the Commission might terminate or shorten the remaining term of existing spectrum leases. However, two parties have urged the Commission to do so – actions that WCA, NIA and CTN strongly oppose. Not only would adoption of those proposals here run afoul of the Administrative Procedure Act (“APA”) for lack of sufficient notice, but it would exceed the Commission’s authority over private contracts and, most importantly, undermine the Commission’s general efforts to develop a secondary market for the leasing of spectrum.

AHMLC, a group of unidentified licensees apparently looking to escape from their current contractual commitments, would have the Commission order that all leases pre-dating the adoption of new rules may not be renewed for additional terms, and that any existing term longer than 3 years is presumptively unlawful to eliminate uncertainty as to the applicability of existing contracts under the rules.¹⁶¹ Meanwhile, Spectrum Market recognizes, as the Coalition

¹⁶¹ AHMLC Comments at 26. In contrast, IMLC (who, as noted *supra*, filed comments that are virtually identical to AHMLC) ask the Commission to direct spectrum lessors and lessees whose lease arrangements are “materially impacted” by the upcoming regulatory changes to enter into “good faith negotiations to conform their agreements to the framework of the new rules while maintaining as closely as possible the business relationship created by the

Comments establish, that the substantial degree of consolidation within the MDS/ITFS industry that has occurred through leasing will diminish the likelihood that any auction will effectuate any significant change in the structure of the band.¹⁶² That, quite obviously, is not good news for Spectrum Market, which apparently hopes to conduct the private auctions. Not to be deterred, Spectrum Market advances a simple (albeit ill-conceived) solution -- on the day the new rules take effect, the Commission should simply terminate all leases that were entered into under the present rules. Spectrum Market would have the Commission believe that “it would be essentially impossible for any pre-existing lease to have contemplated fully the potential changes” that will result from this proceeding.¹⁶³ Thus, terminating all contracts would, according to Spectrum Market, pave the way for parties to enter into new agreements which facilitate restructuring “without being hampered by the existence of former leases.”¹⁶⁴

At the outset, the rationale advanced by these two commenters is patently incorrect. In fact, large numbers of leases have been entered into that accommodate potential regulatory changes of the sort proposed by the *NPRM*.¹⁶⁵ This is why, when a similar proposal was advanced by the same law firm that now represents AHMLC in response to the *WTB Public Notice*, WCA, NIA and CTN advised the Commission that:

WCA, NIA and CTN have not asked the Commission to preempt or otherwise address any existing contractual relationship. As with any change in MDS/ITFS

existing leases.” IMLC Comments at 25. While certainly less egregious than AHMLC’s approach, IMLC’s proposal nonetheless interjects the Commission into matters that are best left to state law.

¹⁶² See Coalition Comments at 108-09.

¹⁶³ Spectrum Market Comments at 15.

¹⁶⁴ *Id.* at 13-14.

¹⁶⁵ See Gryphon Reply Comments at 10-11.

regulation, the impact of the change on any given MDS or ITFS lease must be decided under applicable contract law, based on the language of the particular agreement and the governing state law. Given the wide variety of leasing arrangements that currently exist within the industry, it is not realistic to expect the Commission to accept the proposal by the MLS to “resolve their status generically.”¹⁶⁶

That the *NPRM* does not propose any interference with existing contracts suggests rather strongly that the Commission understands that the relief request by AHLMC and Spectrum Market is wholly inappropriate. Nonetheless, as discussed more fully below, implementing these suggestions is beyond the scope of the Commission’s legal authority, and would be bad policy. Unlike the Coalition Proposal that constitutes a compromise among different segments of the current users of the 2.5 GHz band, these commenters have proposed “solutions” focused only to further their self-interests.

A. Adoption Of The Proposals To Nullify A Lessee’s Pre-Existing Property Rights Would Be Unlawful.

The Commission’s authority to abrogate private contracts is very limited. Under the *Sierra-Mobile* doctrine, the Commission has the power to prescribe a change in contract rates between common carriers when it finds the contract rates to be unlawful (*see Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348, 353-55 (1956)) and to modify other provisions of carrier-to-carrier contracts when necessary to serve the public interest (*see United Gas Pipe Line Co. v. Mobile Gas Corp.*, 350 U.S. 332, 344-45 (1956)). As the U.S. Court of Appeals for the District of Columbia Circuit explained in the context of common carrier telecommunications services:

¹⁶⁶ Coalition WTB PN Reply Comments at 39-40.

The Supreme Court has recognized the authority of a regulatory agency to modify contracts that might “cast upon other consumers an excessive burden,” but has required that contract modification must follow investigation and a determination that the contract was unjust, unreasonable, unduly discriminatory, or preferential.¹⁶⁷

However, even the Commission’s very limited authority to modify common carrier contracts under the *Sierra-Mobile* doctrine does not apply here, since no licensee of which WCA, NIA and CTN are aware acts as a common carrier in its leasing of capacity. Moreover, in contrast to the Commission’s extensive statutory authority over practically all aspects of common carrier rates and operations, the Communications Act contains no express statement of an intention to authorize unilateral modification or abrogations of privately negotiated MDS/ITFS capacity leases. *See Mobile Gas Corp.*, 350 U.S. 332 at 343 (finding that the ability of a regulatory agency to abrogate private contracts is strictly confined to situations delineated in the agency’s organic statute).¹⁶⁸ The Supreme Court has rejected the notion that the general authority conferred under Section 303(r) of the Act empowers the Commission to authorize unilateral nullification of a contract by a Commission licensee. *Regents v. Carroll*, 338 U.S. 586, 600-602 (1949) (“We do not read the Communications Act to give authority to the Commission to determine the validity of contracts between licensees and others”).¹⁶⁹

¹⁶⁷ *MCI Telecommunications Corporation v. FCC*, 665 F.2d 1300, 1303 (D.C. Cir. 1981)(citation omitted).

¹⁶⁸ Nor do the various provisions of the Act “imperatively require” that courts imply such authorization. *Bell Telephone Company of Pennsylvania v. FCC*, 503 F.2d 1250, 1280 (3d Cir. 1974), *cert. denied*, 422 U.S. 1026 (1975).

¹⁶⁹ The decisions cited by Spectrum Market (at 16 and nn. 48-49) to support its claim that the Commission has virtually unlimited authority to nullify the property interests of excess capacity lessees are distinguishable. In *Building Owners and Managers Association Int’l v. FCC*, 254 F.3d 89 (D.C. Cir. 2001), the court upheld a Commission order prohibiting certain private contractual or governmental restrictions on the installation of over-the-air reception devices; but in so doing the court relied upon the fact that Congress enacted a statute expressly directing the Commission to promulgate regulations on this subject. Additionally, the cases cited in *Promotion of*

Moreover, the proposed nullifications of contracts that the Commission had declared lawful in a prior rulemaking proceeding would constitute retroactive rulemaking barred by principles of administrative law. As the Supreme Court explained in 1932 in the context of an Interstate Commerce Commission proceeding:

The Commission's error arose from a failure to recognize that when it prescribed a maximum reasonable rate for the future, it was performing a legislative function. . . [the Commission] was bound to recognize the validity of the rule of conduct prescribed by it and not to repeal its own enactment with retroactive effect. It could repeal the order as it affected future action, and substitute a new rule of conduct as often as occasion might require, but this was obviously the limit of its power, as that of the legislature itself.¹⁷⁰

More recently, the Supreme Court elaborated on the general prohibition against retroactive rulemaking:

Retroactivity is not favored in the law...a statutory grant of legislative rulemaking authority will not, as a general matter, be understood to encompass the power to promulgate retroactive rules unless that power is conveyed by Congress in express terms.... Even where some substantial justification for retroactive rulemaking is presented, courts should be reluctant to find such authority absent an express statutory grant.¹⁷¹

Competitive Networks in Local Telecommunications Markets, 15 FCC Rcd 22983, 23053 n.354 (2000), all relate to common carrier contracts and tariffs over which, as mentioned above, the Commission has extensive and express statutory authority; in contrast, the contracts at issue here do not relate to extensively regulated common carrier service. Finally, AHMLC's citation to the *Two-Way R&O* is of no more help. The retroactive rulemaking adopted in that case related back only to the date the notice for rulemaking was issued. The Commission did not nullify ITFS leases that had been approved prior to the initiation of the rulemaking.

¹⁷⁰ *Arizona Grocery Co. v. Atchison, Topeka & Santa Fe Railway Co.*, 284 U.S. 370, 389 (1932).

¹⁷¹ *Bowen v. Georgetown University Hospital*, 488 U.S. 204, 208-09 (1988)(internal citations omitted). The Supreme Court later confirmed that retroactive rulemaking is particularly offensive when the new regulation purports to replace a prior agency interpretation (as opposed to a situation where there was prior no clear agency guidance). *Smiley v. Citibank*, 517 U.S. 735, 744 n.3 (1996).

Here, the Commission already has determined in a notice-and-comment rulemaking that excess capacity leases with terms as long as fifteen years serve the public interest,¹⁷² and has reviewed and approved individual contracts.¹⁷³ In a similar situation, the Commission found that it would not be reasoned decision-making (or otherwise in the public interest) to retroactively void private long-term contracts that were entered into by parties in response to a change in Commission policy:

We also find that the public interest is not served by nullifying MCI WorldCom and AT&T contractual obligations to Comsat. The long-term contracts between AT&T, MCI WorldCom and Comsat represent the current agreements that resulted from [the FCC's] 1988 decision to eliminate imposition of circuit distribution guidelines. . . [The FCC] abandoned this policy in favor of long-term contracts between Comsat and U.S. carriers. . . AT&T and MCI WorldCom entered into [the long-term contracts] on their own accord based on business judgment, their benefit in terms of the elimination of a Commission policy they found undesirable, and for the ability to obtain [benefits in exchange for a long-term commitment]. . . Therefore, we do not believe it would be reasoned decision-making to upset previous commitments freely entered into by all parties that [were] formed [on] the basis of a change in longstanding Commission policy. The historical basis for these contracts makes the issue before us here distinguished from other instances in which we imposed fresh look.¹⁷⁴

Moreover, regulatory nullification of spectrum leases would be blatantly unfair, and thus arbitrary and capricious, unless the Commission provided recompense for future lost leasing revenue that licensees would gain, damages for disruption to facilities and services of both

¹⁷² *Two-Way R&O*, 13 FCC Rcd at 19183.

¹⁷³ *See id.* at 19180.

¹⁷⁴ *Direct Access to the INTELSAT System*, 14 FCC Rcd 15703, 15754 (1999) (internal footnotes omitted)[*"INTELSAT R&O"*].

lessors and lessees, and recoupment of consideration already paid by lessees to secure long-term access to spectrum. This is especially the case where, as here, the record is bereft of public interest benefits supporting the suggested nullification of long-term MDS/ITFS leases. Earlier this year the Commission rejected a proposal to ban exclusive long-term contracts between MVPDs and multiple dwelling unit buildings.¹⁷⁵ The Commission declined to intervene to modify the privately negotiated contracts by regulatory fiat because it recognized the record in the proceeding was insufficient to justify imposing a cap on the length of any contract or to find that exclusive contracts are predominantly anti-competitive.¹⁷⁶ The record in this proceeding is equally deficient to support the radical step of nullifying the same multi-year private leases that the Commission previously approved.

While the Commission previously has claimed that it lawfully could adopt a “fresh look” policy allowing customers to opt out of long-term 800 service contracts with a common carrier that was dominant in that service, the Commission’s action was never affirmed by a court and cannot be extended to the instant situation for at least two reasons. First, “fresh look” is limited to situations not applicable here, namely (1) where “the entity holding the long-term contracts has market power and has exercised that market power to create long term contracts to ‘lock up’ the market in such a way so as to create unreasonable barriers to competition” and (2) where “the contractual obligation can be nullified without harm to the public interest.”¹⁷⁷ Second, in contrast to the contracts at issue in the proceedings where “fresh look” was adopted, the

¹⁷⁵ *Telecommunications Services Inside Wiring*, 18 FCC Rcd 1342 (2003).

¹⁷⁶ *See id.* at 1366-72.

¹⁷⁷ *See INTELSAT R&O*, 14 FCC Rcd at 15752 (describing situations in which the Commission previously applied a “fresh look” policy allowing certain customers to abrogate private contracts with common carriers).

Commission has previously found long-term ITFS excess capacity leases of the length at issue here to be affirmatively in the public interest. The Commission cannot reverse its policy unless it gives a reasonable explanation and appropriate notice to interested parties.¹⁷⁸

B. Adoption Of The Proposal To Nullify Pre-Existing Excess Capacity Leases Would Be Unwise As A Matter Of Policy.

In its most recent decision affirming the right of ITFS licensees to enter into excess capacity leases, the Commission concluded generally “that ITFS licensees can and should in their negotiations with wireless cable operators arrange for lease terms that best protect their own individual interests and needs.”¹⁷⁹ More specifically, the Commission found that “ITFS licensees should retain the flexibility to negotiate whatever consideration under the excess capacity lease best suits their needs.”¹⁸⁰ The Commission expressly determined that lease terms as long as 15 years would serve the public interest as “a 15 year lease term limit also will help provide greater certainty to ITFS licensees, which, for instance, may appreciate the assurance of long-term, stable maintenance and operational support offered by a longer term lease.”¹⁸¹

ITFS licensees and commercial system operators took advantage of the flexibility granted by the Commission to enter into long-term leases and submitted the leases for Commission

¹⁷⁸ See *Motor Vehicles Manufacturers Association v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 42 (1983) (“[A]n agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance.” See also *American Federation of Labor v. Donovan*, 757 F.2d 330, 340 (D.C. Cir. 1985). “As a general rule, [an agency] must *itself* provide notice of a regulatory proposal. Having failed to do so, it cannot bootstrap notice from a comment.” See *id.*, quoting *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983).

¹⁷⁹ *Two-Way R&O*, 13 FCC Rcd at 19172.

¹⁸⁰ *Id.* at 19178.

¹⁸¹ *Id.* at 19183.

review.¹⁸² In many instances, the ITFS licensee negotiated significant concessions to be performed by the lessee in the initial stages of the long-term lease, such as upfront payments of money or purchases of expensive equipment to be used by the ITFS licensee. Because such upfront costs can only be recovered by the lessees over the life of the contract, nullification of the long-term lease will certainly be problematic, as the commercial operators that made the upfront expenditures will find themselves without the consideration they bargained for.

It also would be unwise as a matter of policy for the Commission to be seen as flip-flopping on ITFS spectrum leasing rights, first expressly authorizing long-term leases, then abrogating them. The Commission recently has adopted new rules that seek to employ marketplace concepts to promote spectrum efficiency by eliminating barriers in the development of secondary markets for spectrum, including by authorizing more widespread leasing of spectrum to non-licensees through private contract.¹⁸³ It has repeatedly affirmed that the long-term health of the communications market depends on the certainty and stability that stems from the predictable performance and enforcement of contracts.¹⁸⁴ The Commission also has recognized that “[f]acilitating the development of secondary markets in spectrum usage rights is of critical importance as the Commission moves forward in implementing spectrum policies that increase the public benefits from the use of radio spectrum.”¹⁸⁵ To do so, it is essential that the

¹⁸² *Id.* at 19180.

¹⁸³ See *Promoting Efficient Use of Spectrum Through Elimination of Barriers in the Development of Secondary Markets*, Report and Order and Further Notice of Proposed Rulemaking, WT Docket No. 00-230, FCC 03-113 (rel. Oct. 6, 2003) [“*Secondary Markets R&O*”].

¹⁸⁴ See, e.g., *Ryder Communications, Inc. v. AT&T Corp.*, 18 FCC Rcd 13603, 13613-14 (2003).

¹⁸⁵ *Id.* at 13603.

Commission “remov[e] regulatory uncertainty and establish[] clear policies and rules concerning ‘spectrum leasing’ arrangements.”¹⁸⁶ For the Commission to reverse course and nullify long term capacity leases that it previously authorized will send the marketplace a signal not to rely on the Commission’s stated intention to embrace free market principles such as the enforceability of freely negotiated, arms-length contracts.

VII. THE COMMISSION SHOULD MODIFY THE PROPOSED RESTRICTION ON OOBE INTO THE MBS TO PROVIDE LICENSEES OF FIXED STATIONS GREATER FLEXIBILITY IN PROTECTING MBS RECEIVE SITES.

The *NPRM* solicited comments on the proposal by WCA, NIA and CTN for an operational emission mask limiting OOBE from transmissions outside the MBS to no greater than -37 dBm EIRP (if the protected MBS channel is operating using analog modulation) or -20 dBm EIRP (if the protected MBS channel is operating using digital modulation) in the MBS.¹⁸⁷ In response to concerns expressed by the Commission,¹⁸⁸ WCA, NIA and CTN reexamined the proposal to ameliorate the potential burden this proposal could impose on licensees. In their comments, WCA, NIA and CTN proposed that fixed stations other than those that are customer-installed that operate outside the MBS be entitled to incorporate a 20 dB cross-polarization allowance when the facilities at issue in the MBS are cross-polarized to the signals originating outside the MBS.¹⁸⁹ In addition, they agreed to further discuss this issue.¹⁹⁰

¹⁸⁶ *Id.*

¹⁸⁷ These figures were derived in order to provide 1 dB protection to the noise floor of ITFS video operations. *See* Coalition Comments at 55 n.104.

¹⁸⁸ *See NPRM*, 18 FCC Rcd at 6780-81.

¹⁸⁹ *See* Coalition Comments at 56. Thus, under such circumstances the proposed OOBE limit becomes -17 dBm EIRP where the MBS facility operates using analog modulation and 0 dBm EIRP where the MBS facility operates using digital modulation.

As a result of those further discussions, WCA, NIA and CTN have developed a less restrictive alternative approach that provides licensees of fixed (not mobile) facilities operating outside the MBS (other than customer-installed fixed facilities) with additional flexibility, while affording equivalent protection to the MBS. Specifically, the licensee of any fixed facility (other than a customer-installed fixed facility) should be permitted to transmit OOB in excess of that permitted by this operational mask, provided that in the event that harmful interference is caused at a bona fide ITFS receive site (including a bona fide ITFS receive site that is installed after the construction of a fixed facility operating outside of the MBS), the licensee takes such measures as are necessary to assure that its OOB signal level on the MBS channel in issue does not exceed -107 dBm for an ITFS receive site receiving analog programming and -90 dBm for an ITFS receive site receiving digital programming, measured across a 6 MHz bandwidth at the output of the download cable connecting the ITFS reception antenna to the input of any ITFS receiver entitled to protection.¹⁹¹

Adoption of this modification will substantially mitigate the strictness of the pending proposal, while still assuring reasonable protection to all bona fide ITFS receive sites. There are a variety of interference mitigation techniques available when the interferor and the interferee are both at known, fixed locations, and this modification allows licensees to take advantage of all of those techniques rather than deploy expensive filtering that will often be unnecessary. For

¹⁹⁰ *See id.*

¹⁹¹ Measurements made at the download cable connecting the ITFS reception antenna to the input of any ITFS receiver entitled to protection must compensate for the gain of the ITFS downconverter and the losses in the antenna feed line system. Example: The ITFS receive site under test uses a 36 dB gain downconverter and has 6 dB of download cable loss. The measurement device records an OOB level in the 6 MHz channel of interest as -77 dBm. The corrected measurement made across the 6 MHz channel in this instance is then equal to -107 dBm.

example, adoption of this modification will allow additional factors such as antenna directivity and terrain or other blockages also to be considered in protecting ITFS receive sites.¹⁹² Consideration of these factors, which cannot be relied upon with respect to portable, mobile or customer-installed fixed stations, will permit more effective use of the spectrum outside the MBS, while assuring no degradation of service to ITFS receive sites in the MBS.

VIII. THE COMMISSION SHOULD RESOLVE OTHER ISSUES AS PROPOSED BY WCA, NIA AND CTN.

A. The Commission Should Adopt The Performance Requirements Suggested In The Coalition Proposal.

The Coalition Proposal advanced a detailed approach to replacing the current patchwork quilt of performance requirements imposed on MDS and ITFS licensees with the “substantial service” test that other flexible use licensees are required to meet to secure renewal of their licenses. More specifically, as summarized in the Coalition Comments, WCA, NIA and CTN proposed that:

- Consistent with the approach taken with respect to flexible use services governed by Section 27.14 of the Rules, all current construction deadlines and build-out requirements should be replaced by a single substantial service requirement;
- The performance safe harbors applicable to the other flexible use services regulated under Part 27 should apply to MDS and ITFS;
- An applicant should be entitled to a renewal expectancy upon demonstration that it has provided substantial service at some time during the term of its license;
- A given call sign should be entitled to renewal, even if the spectrum has not been utilized during the term of the license, so long as the call sign is part of a system that is providing substantial service and the spectrum at issue is either employed for a guardband or is being held in reserve by the system operator for expansion;

¹⁹² The licensee of a non-MBS channel should be permitted, at its cost, to upgrade an ITFS receive antenna in accordance with current rules, to cross-polarize an ITFS system (subject to compliance with the Commission’s interference protection rules) and/or to digitize an ITFS system when such actions will bring it into compliance with these requirements.

- All outstanding conditional licenses for which a request for additional time to construct is pending should be converted to licenses and subject to the substantial service test at renewal; and
- Consistent with other Part 27 flexible use services, the Commission should repeal the current MDS and ITFS rules subjecting licenses to cancellation if spectrum is not used for brief periods of time or if licensed facilities are temporarily dismantled.¹⁹³

Those responding to the *NPRM* were highly supportive of the Coalition Proposal's approach to performance requirements.¹⁹⁴ Indeed, those commenting were unanimous in supporting the need to substantially revise the current performance rules. Significantly, there was no opposition to awarding a renewal expectancy to any licensee that had provided substantial service during the term of its license, but might not be doing so at the time of renewal because of a transition from one service offering to another.

Indeed, only IPWireless and Grand Wireless propose alternatives to the Coalition Proposal, both of which would impose a series of additional incremental benchmarks that licensees would be required to meet.¹⁹⁵ Grand Wireless would have the Commission adopt a rule under which a licensee in a rural area would be required to build out an area covering 30 percent of the population within 2 years of the effective date of an order in this proceeding, 50 percent

¹⁹³ Coalition Comments at 83-84 (footnote omitted).

¹⁹⁴ See BellSouth Comments at 31-33; Consolidated Telecom Comments at 4-5; EarthLink Comments at 9; HITN Comments at 8; IMLC Comments at 22-23; Comments and Reply Comments of Network for Instructional TV, Inc., WT Docket No. 03-66, at 8 (filed Oct. 16, 2003) ["NITV Comments"]; Sprint Comments at 16-17; Twedt Reply Comments at 4.

¹⁹⁵ See IPWireless Comments at 22-25; Grand Wireless Comments at 13-14. In addition WaveTel, L.L.C. urges the Commission to assure that MDS BTA authorization holders are awarded an additional two years from the release of final rules in which to comply, that MDS site-based licenses receive twelve months and that ITFS site-based licenses receive eighteen months. See Comments of WaveTel, WT Docket No. 03-66, at 2-3 (filed Sept. 8, 2003). WCA, NIA and CTN do not object to adoption of this proposal as an overlay on their proposal, with licensees required to complete construction by the latter deadline under the two approaches.

within 4 years, 70 percent within 6 years and 80 percent within 8 years.¹⁹⁶ WCA, NIA and CTN cannot square this approach with the Commission's general recognition that a substantial service at renewal test best serves the public interest in promoting the introduction of innovative services over flexible use spectrum.¹⁹⁷ Strangely, Grand Wireless does not explain why it would impose on rural MDS/ITFS licensees construction requirements that are far more difficult to meet than those imposed on other licensees. Indeed, WCA, NIA and CTN agree with the National Telecommunications Cooperative Association that "[t]he Commission should not impose more stringent construction requirements just on rural areas as this would unfairly disadvantage small carriers."¹⁹⁸ Particularly in light of the small service area sizes utilized in the licensing of MDS and ITFS stations, there is no need for the Commission to adopt special performance requirements to promote service to rural areas.

The Grand Wireless approach also suffers many of the same flaws as that advanced by IPWireless. IPWireless proposes that every MDS licensee and every commercial lessor of ITFS licensee be required within 36 months of the effective date of new rules to complete construction of facilities capable of serving one or more communities, within 48 months construct facilities capable of serving at least one-third of the population within its GSA, and within 60 months serve two-thirds of the GSA population. Indeed, IPWireless would go further and require that

¹⁹⁶ See Grand Wireless Comments at 14.

¹⁹⁷ See Coalition Comments at 86-92.

¹⁹⁸ NTCA Comments at 7.

once constructed, the licensee “maintain [the system] in continuous commercial service throughout the remainder of the term of its license or lease.”¹⁹⁹

Like Grand Wireless, IPWireless provides no discussion of why the 2.5 GHz band should be subject to more rigorous performance requirements than other flexible use services. Nor does IPWireless explain why, once a system is constructed, it should be required to remain in operation continuously throughout the term of the license. WCA, NIA and CTN can understand why IPWireless, one of the few vendors currently marketing second generation 2.5 GHz equipment, would benefit commercially were the Commission to force licensees to deploy equipment quickly (before additional vendors enter the marketplace) and, once deployed, to maintain use of that equipment *ad infinitum*. However, WCA, NIA and CTN do not believe that the public interest is served either by forcing licensees to make premature technology decisions, nor is it served by effectively requiring licensees to deploy services aimed at the mass market rather than more niche-oriented services that cannot be effectively judged utilizing coverage requirements, but can satisfy a substantial service test. Nor is the public interest served by barring a licensee that deployed a given technology that fails in the marketplace from making necessary adjustments (adjustments that may include ceasing operations and deploying an entirely new service).

In short, the substantial service test has been utilized for every other flexible use service and, while minor adjustments are necessary to accommodate the unique circumstances here, the record is clear that the same approach is appropriate for MDS/ITFS.

¹⁹⁹ IPWireless Comments at 24.

B. The Record Does Not Support Auctioning Of A Gulf Of Mexico Service Area At This Time.

In their comments, WCA, NIA and CTN expressed skepticism regarding the demand for MDS/ITFS based services in the Gulf of Mexico, but proposed service rules that will allow service to be provided in the Gulf without interference to land-based services.²⁰⁰ That skepticism was well-founded, as no party has provided any indication that there is any demand for use of the 2.5 GHz band in the Gulf waters. Indeed, no other party even addressed the issue other than Sprint, which shared the same concerns as WCA, NIA and CTN.²⁰¹

As such, the Commission should refrain from deciding at this juncture how much spectrum in the 2.5 GHz band to license in the Gulf. The *NPRM* itself recognized that the Commission has insufficient data “to resolve issues concerning the amount of spectrum to license in the Gulf Service Area,” and since nothing has been submitted in response to the *NPRM*, the record does not support any licensing at this time.²⁰² However, the Commission should proceed with adoption of the rules proposed by WCA, NIA and CTN to govern operations in the Gulf and the land areas near the Gulf. Now that the Commission has created a Gulf BTA-like service area, such rules are essential to provide land-based licensees with the certainty they need to design and implement wireless broadband systems.

At the same time, the Commission should refrain from determining how much spectrum to license in the Gulf until it receives an expression of interest that will allow the Commission and the public an opportunity to determine the level of demand for Gulf spectrum. This is

²⁰⁰ See Coalition Comments at 74-83.

²⁰¹ See Sprint Comments at 15-16.

²⁰² *NPRM*, 18 FCC Rcd at 6762.

similar to the approach the Commission adopted this summer with respect to deferring any auction of PCS spectrum in the Gulf when it concluded that there was no basis for actually licensing PCS in the Gulf despite the adoption of applicable rules.²⁰³ There is no reason to proceed differently here.

C. The Comments Submitted In Response To The NPRM Are Virtually Unanimous In Their Opposition To Unlicensed Use Of The 2500-2690 MHz Band.

In the *NPRM*, the Commission questioned whether to allow unlicensed use either of the ITFS “white space” (the areas that are not within the GSA of any incumbent stations) or on a secondary, low power underlay basis throughout the 2.5 GHz band.²⁰⁴ Almost without exception, the comments submitted in response to the *NPRM* opposed both of these suggestions on the grounds that such unlicensed use could jeopardize primary licensed operations.

In their comments, WCA, NIA and CTN raised serious technical concerns that the Commission’s proposal to permit underlay operations was premature, given the lack of any evidence that such operations can be deployed without serious risk of interference to licensed services.²⁰⁵ Indeed, with just one exception, every party commenting on the issue, including technology providers and licensees, opposed the authorization of unlicensed underlays due to similar reservations regarding potential interference and the burdens that unlicensed underlay

²⁰³ See *Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico*, 18 FCC Rcd 13169, 13183 (2003) (“We also reiterate that we find no basis in the record to create a separate PCS Gulf licensee with primary rights in this proceeding. The *Gulf Report and Order* sought only to provide flexibility in cases where carriers in a particular service seek to establish a separate Gulf market. In those cases, we would commence a proceeding to determine whether, based on a service’s specific rules, a new Gulf market should be established. In the *Gulf Report and Order*, however, we did not find that a new PCS market should be created. To the contrary, we stated that the lack of support in the record suggests that there is limited interest among PCS carriers in serving offshore facilities in the Gulf.” (footnotes omitted)).

²⁰⁴ See *id.* at 6755-56.

²⁰⁵ See Coalition Comments at 64-67.

operations would impose on licensees.²⁰⁶ Significantly, not one service provider or vendor indicated any interest in unlicensed underlay use of the band, much less demonstrate that underlay operations could be accomplished on a non-interfering basis. Indeed, the sole advocate for allowing unlicensed operations was New America Foundation and other “public interest” groups (collectively, “NAF”).²⁰⁷

NAF premises its position on the assertion that “[w]ith new radio technology, it becomes increasingly practical to allow unlicensed underlays in spectrum otherwise used by incumbent licensees.”²⁰⁸ Yet, it provides no technical analysis to substantiate its claim. That, of course, is the crux of the problem – the record before the Commission in this proceeding is devoid of any technical demonstration that technology available today can, in fact, operate on an underlay basis and reliably avoid interference to licensed operations.²⁰⁹ The fact that every equipment manufacturer participating in this proceeding disagrees with NAF’s rosy assessment of today’s technology speaks volumes as to the practicality of secondary unlicensed underlays.²¹⁰

²⁰⁶ See, e.g., AHMLC Comments at 16-17; BellSouth Comments at 26; ComSpec Comments at 2; CTIA Comments at 5-6; EarthLink Comments at 13-14; Ericsson Comments at 9-13; Hardin Comments at 6-7; IMWED Comments at 19-20; IPWireless Comments at 20-21; Lucent Comments at 4; Motorola Comments at 15-16; NITV Comments at 9; Nokia Comments at 3-4; Sprint Comments at 7-15; TIA Comments at 2-3.

²⁰⁷ See NAF Comments at 25.

²⁰⁸ *Id.*

²⁰⁹ Ironically, to support its position NAF cites to comments filed by Microsoft Corp. in ET Docket No. 02-380. However, it ignores that in reply comments recently filed by Microsoft in ET Docket No. 03-65, Microsoft concedes that “[i]n any band in which the Commission authorizes underlay devices, there will be a non-zero possibility of interference.” Reply Comments of Microsoft, ET Docket No. 03-65, at 4 (filed Aug. 18, 2003).

²¹⁰ See Ericsson Comments at 9-13; IPWireless Comments at 20-21; Lucent Comments at 4; Motorola Comments at 15-16; Nokia Comments at 3-4.

Those filing in response to the *NPRM* reacted with a similar lack of enthusiasm to the proposal to allow unlicensed use of the ITFS white space. Once again, that proposal was roundly criticized by every one of the parties commenting on it,²¹¹ save for NAF, which “would support extending the Part 15 Rules to the remaining ‘white spaces’ for opportunistic sharing by license exempt users who can do so without harmful interference with licensed applications.”²¹² Unfortunately, NAF’s infatuation with the commons model cannot obscure one fact – neither NAF nor any other party to this proceeding has provided the Commission with one iota of evidence that unlicensed operations will not cause interference to the ubiquitous fixed, portable and mobile operations that licensees are planning on deploying in the 2500-2690 MHz band! Again, it is telling that not one equipment manufacturer gave even the slightest indication that it desires to construct devices that could operate on an unlicensed basis in the very limited ITFS white space that is available, much less state that it could actually construct such devices.²¹³

Moreover, NAF ignores the substantial public interest benefits that will accrue from allowing ITFS eligibles to expand into this white space. The record is replete with evidence that much of the white space is unlicensed not because of a lack of interest on the part of educators, but because the Commission has not permitted the filing of applications for new stations for the

²¹¹ See Coalition Comments at 97-98; Consolidated Telecom Comments at 9; EarthLink Comments at 13-14; Ericsson Comments at 5-6; Motorola Comments at 14; Stanford Comments at 21-23. Although others do not specifically address the proposal to set aside the white space for unlicensed operations, they propose that the white space be licensed. See IPWireless Comments at 11; Adams Comments at 9 n.12; ComSpec Comments at 2; HITN Comments at 10; NTCA Comments at 5-6.

²¹² NAF Comments at 5.

²¹³ The lack of enthusiasm by the vendor community for developing equipment that could be used in only the most remote areas of the country (which is where the ITFS white space happens to be) should come as no surprise to NAF, which itself argues that spectrum must be set aside nationwide for unlicensed use. See *id.* at 4.

past eight years. It is abundantly clear that allowing ITFS licensees access to the white space will, in many areas of the country, result in long-overdue expansion of educational programs. In contrast, there is no evidence to substantiate NAF's claim that expanding license exempt use into the ITFS white space would promote either competition or innovation.²¹⁴ While doing so certainly promotes NAF's political agenda of "expand[ing] direct citizen access to the spectrum wherever possible," that does not necessarily translate into additional competition or innovation.

Again, the lack of support for NAF by either competitive service providers or the technology community is telling. Contrary to NAF's suggestion that expanding the spectrum available for license exempt operations promotes competition, WCA, NIA and CTN, along with other commenters in this proceeding, have found that those using license exempt spectrum to provide commercial Internet access in competition with cable modem and DSL services are increasingly examining a transition to licensed spectrum to escape the problems associated with provision of a commercial service on a secondary basis.²¹⁵ The Commission's decision last week in the *Above 70 GHz Proceeding* to adopt an innovative licensing system was a direct result of concerns that a commons model would undermine the commercial utility of the band because it would not provide the interference protection that end users demand.²¹⁶ The same is certainly true here.

²¹⁴ See NAF Comments at 14.

²¹⁵ See IMWED Comments at 19.

²¹⁶ See "FCC Opens 70, 80, and 90 GHz Spectrum Bands for Deployment of Broadband 'Millimeter Wave' Technologies," *FCC News Release* (rel. Oct. 16, 2003).

NAF even goes so far as to propose that the Commission strip 90 MHz of spectrum from existing licensees and reallocate the 2500-2590 MHz band for unlicensed public access use.²¹⁷ While NAF claims that such a reallocation will better serve the “general interests of the public” and “minimize the windfall to incumbent licensees,”²¹⁸ this proposal is ill-timed and ill-conceived.

At the outset, adoption of NAF’s proposal would run afoul of the APA.²¹⁹ Section 553 of the APA requires an administrative agency to give appropriate notice of all rules and policies it is considering changing in a proceeding. While the Commission solicited comment “on the advantages and disadvantages of allowing unlicensed technologies *to operate in current white space in the ITFS spectrum, and where ITFS licenses are returned to the Commission, on a primary basis*,”²²⁰ the reallocation of the 90 MHz of spectrum at 2500-2590 MHz from ITFS for unlicensed use is neither specifically proposed in the *NPRM* nor can it reasonably be considered to be the logical outgrowth of any proposal. To the contrary, the *NPRM* consistently reassures ITFS licensees that “we do not intend to evict any incumbent licensees from the affected band,”

²¹⁷ NAF proposes that existing licensees in the 2500-2590 MHz band be grandfathered and that unlicensed operations utilize technology to detect spectrum used by incumbent licensees “and work around it.” *See* NAF Comments at 20. Once again, NAF embraces a technology solution without providing any evidence whatsoever that such technology actually is available and can perform as advertised. NAF proposes that ITFS licensees ultimately be relocated, with funding provided either by equipment manufacturers or from auctions. What NAF conveniently ignores is that the vendor community has not embraced unlicensed use of the ITFS band and, in NAF’s own words “UTAM was not very successful”, relocation would have to address the commercial operations in the band under spectrum leases as well, and that under NAF’s proposal, there would be no auction of spectrum in the band from which to fund the relocations.

²¹⁸ *See id.* at 8.

²¹⁹ *See* 5 U.S.C. §551, *et seq.*

²²⁰ *NPRM*, 18 FCC Rcd at 6756 (emphasis added).

repeating this or similar language two other times during the course of the document.²²¹ As such, one cannot reasonably assert that the proposal to strip 90 MHz of spectrum from ITFS and reallocate it exclusively for unlicensed use is a “logical outgrowth” of the *NPRM*, and thus adoption at this juncture would run counter to Section 553 of the APA.²²²

More importantly, NAF has failed to make the case that reallocation of 90 MHz of ITFS spectrum for unlicensed uses would serve the public interest. As noted above, there is substantial benefit to licensing the band, rather than employing the commons model, as commercial broadband services will need the interference protection benefits of the exclusive use model if they are to meet the service quality expectations of end users. Indeed, the question of whether spectrum should be reallocated from ITFS was answered with a resounding “NO!” in the allocation proceeding that led directly to this service rules proceeding. As the *NPRM* makes clear, this proceeding is an immediate outgrowth of the *Report and Order* in ET Docket No. 00-258,²²³ where after an extensive evaluation of current and future ITFS usage the Commission concluded that it would not reallocate any spectrum from ITFS but, instead, would provide MDS and ITFS licensees with the flexibility to provide a wide variety of fixed, portable and mobile

²²¹ *Id.* at 6725 (emphasis added). *See also id.* at 6744 (“We do not propose to reclaim licenses from any incumbent operators.”); *id.* at 6771 (“[W]e emphasize that we do not contemplate reclaiming licenses from any incumbent licensees.”).

²²² *See, e.g. Weyerhaeuser Company v. Costle*, 590 F.2d 1011, 1031 (D.C. Cir. 1978); *Owensboro on the Air v. United States*, 262 F.2d 702 (D.C. Cir. 1958); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 548-49 (D.C. Cir. 1983).

²²³ *See NPRM*, 18 FCC Rcd at 6730-31.

services over their spectrum.²²⁴ This proceeding is about implementing service rules that will allow licensees to take advantage of that flexibility, not about reallocating the spectrum before the substantial public interest benefits of adding flexibility to the MDS/ITFS allocation can be realized. Moreover, NAF has failed to demonstrate that the Commission's other recent spectrum allocations for license exempt use would not satisfy any need for additional license exempt spectrum.²²⁵

Finally, the Commission must reject efforts by NAF to paint a grant of the Coalition Proposal as some sort of windfall for the MDS and ITFS community. The Coalition Proposal was submitted to assist the Commission in revising its service rules to provide for more efficient deployment of fixed, portable and mobile services. Significantly, WCA, NIA and CTN did not seek, and are not now seeking, the authority for MDS or ITFS licensees to provide any services that they are not currently authorized to provide. Nor does the *NPRM* propose to permit MDS or ITFS licensees to provide any previously unauthorized services. As such, NAF's anti-incumbent rhetoric, which is based on the mistaken belief that MDS/ITFS licensees are here asking for a mobile allocation, is misplaced.²²⁶

²²⁴ See *3G First Report and Order*, 16 FCC Rcd at 17223 ("[B]ecause the 2500-2690 MHz band is extensively used by incumbent ITFS and MMDS licensees, and in order to preserve the viability of the incumbent services, we are not relocating the existing licensees or otherwise modifying their licenses.").

²²⁵ Indeed, just recently the Commission proposed to allocate an additional 255 MHz of spectrum for unlicensed use at 5.470-5.725 GHz. See *Revision of Parts 2 and 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz Band*, 18 FCC Rcd 11581 (2003). As noted by Chairman Powell, this proposal would nearly double the amount of spectrum available for unlicensed operations in the 5 GHz band. See *id.* at 11605.

²²⁶ See NAF Comments at 10. NAF's failure to recognize that the Commission added a mobile allocation for the 2500-2690 MHz band two years ago is just one of the shortcomings in its filing. For example, NAF wrongly contends that the positions WCA, NIA and CTN are taking here are inconsistent with those it took in ET Docket No. 00-258, where they opposed reallocation of 90 MHz of the 2.5 GHz for advanced wireless services. See *id.* at 19. What NAF ignores is that in ET Docket No. 00-258 the Commission was proposing to reallocate spectrum, assign it

D. Those Advocating Commission-Conducted Two-Sided Auctions Have Failed To Address The Practical Impediments Identified By WCA, NIA And CTN.

In their comments, WCA, NIA and CTN established that two-sided auctions are inappropriate for the 2.5 GHz band given the substantial consolidation and rationalization that has already occurred through secondary market mechanisms and the significant potential for delays in the deployment of broadband facilities.²²⁷ While some have submitted comments promoting the use of two-sided auctions, none have addressed the concerns expressed by WCA, NIA and CTN.²²⁸ Thus, WCA, NIA and CTN remain convinced that the Commission should refrain from imposing two-sided auctions for MDS/ITFS.

E. The Commission Should Not Limit CPE To 2 Watts EIRP.

In the Coalition Proposal, WCA, NIA and CTN recommended that the Commission repeal the restriction contained in Sections 21.909(g)(2) and 74.939(g)(2) limiting the transmitter output power of MDS/ITFS customer equipment to 2 watts.²²⁹ As they explained:

That restriction was adopted in the *MDS/ITFS Two-Way Report and Order* without any explanation whatsoever. It has proven to unduly restrict the flexibility of equipment designers to make the most efficient use of the 2.1 GHz and 2.5 GHz bands. It is important to recognize that no change is being proposed in the requirement that MDS and ITFS licensees and equipment manufacturers

to an entirely new group of licenses, cram existing and future MDS and ITFS needs into one-half the spectrum and accomplish all that without interference, while here WCA, NIA and CTN have proposed rules to streamline the provision of authorized services by current licensees without reducing the spectrum allocation one bit. Similarly incorrect is NAF's assertion that the Coalition Proposal "calls for giving incumbent licensees within the 2500-2690 MHz band access to all the empty geographic white spaces without paying additional compensation to the public." *Id.* at 11. This mischaracterization is startling, since the *NPRM* makes clear that the Commission auctioned the MDS white space in 1996 and since the Coalition Proposal clearly suggests that the FCC utilize competitive bidding to license the ITFS white space in a fashion similar to the way it auctioned the MDS white space in 1996. *See* Initial Coalition Proposal at 42.

²²⁷ *See* Coalition Comments at 106-17.

²²⁸ *See* ITIC Comments at 7-8; Grand Alliance Comments at 9-10; AIB Comments at 18.

²²⁹ *See* Initial Coalition Proposal at 25.

comport with the restrictions on power contained in Parts 1 and 2 that are designed to assure the protection of human health and safety. Indeed, the new rules should include a provision modeled on Section 27.52 making clear that licensees and manufacturers are subject to the radio frequency radiation exposure requirements specified in §§1.1307(b), 2.1091, and 2.1093 of the Rules and mandating that applications for equipment authorization of mobile or portable devices operating contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions.²³⁰

However, IPWireless advocates that the Commission adopt a substantially more restrictive limit, requiring that all subscriber equipment be restricted to just 2 watts EIRP, contending that this would conform to the limit on PCS mobile stations.²³¹

The answer to IPWireless' position can be found in the *NPRM* itself. Proposing adoption of the Coalition Proposal's approach, the Commission states that:

the record of the PCS proceeding indicates that the 2-watt limit was originally designed to reduce the likelihood of interference with fixed microwave stations in the PCS bands. We seek comment on the extent to which similar concerns should apply for MDS and ITFS, bearing in mind the differences between the incumbent licensees in the MDS/ITFS bands – and their circumstances – as compared with the incumbent licensees in the PCS band. While compliance with our safety rules may by itself necessitate compliance with a 2-watt limit for devices that are normally held close to the user's body, those rules allow higher power levels in circumstances where the response station's transmission antenna is designed to be used at least twenty centimeters away from the body of the user or any nearby persons.²³²

Indeed, the Commission noted that “[a]t frequencies above 1.5 GHz, mobile devices whose effective radiated power (ERP) is less than 3 watts are not required to undergo even

²³⁰ *Id.* at 25-26 (footnotes omitted).

²³¹ *See* IPWireless Comments at 15-16.

²³² *NPRM*, 18 FCC Rcd at 6778, *citing Amendment of the Commission's Rules to Establish New Personal Communications Services*, 8 FCC Rcd 7700, 7764-65 (1993)(footnotes omitted).

routine environmental evaluation for radio frequency exposure prior to equipment authorization or use. 47 C.F.R. § 2.1091.”²³³

In short, adoption of the Coalition Proposal’s suggested power limits for CPE will pose no threat to human health or safety or introduce any risk of unreasonable interference. What is will do, however, is provide service providers additional flexibility in the type of services that can be delivered over MDS/ITFS spectrum.

F. The Commission Should Reject IMWED’s Suggestion That The Commission Require ITFS Licensees To Pay For Licenses Won At Auction From Their Own Funds.

Although not proposed in the *NPRM*, IMWED suggests that the Commission adopt a rule under which ITFS licensees would be required to pay for any authorizations secured at auction with their own funds and would be precluded from relying upon funding from third parties, including excess capacity lessees.²³⁴ That proposal not only violates the APA, but it makes no logical sense.

This is not the first time the members of IMWED have floated this concept. In response to the *WTB Public Notice*, an entity called the ITFS Spectrum Development Alliance (“SDA”) advanced the same proposal to ban participants in auctions of ITFS spectrum from utilizing funds provided by third parties to purchase spectrum at auction.²³⁵ The members of SDA are

²³³ *Id.* at n.316.

²³⁴ *See* IMWED Comments at 7.

²³⁵ *See* SDA WTB PN Comments at 14.

almost identical to the members of IMWED.²³⁶ The Commission did not even solicit comment on that proposal in the *NPRM*, and certainly should not adopt it here.

It may be that the members of IMWED have been able to develop substantial financial reserves from their excess capacity leasing or other activities and believe they can participate in auctions without securing additional funding from other sources. But typically, internally generated funding for educators to participate in auctions will be scarce, and many educators eligible to participate in future ITFS auctions may be hard-pressed to use educational resources to purchase spectrum without assistance from third parties such as supporting foundations, substantial charitable donors, grant-making agencies, and, of course, excess capacity lessees.²³⁷

IMWED's proposal therefore appears to favor certain non-profit entities (such as its members) with internally available resources over educators that may have to seek funding from other sources. WCA, NIA and CTN do not see any reasoned policy basis to suggest that non-profit entities with spare funding available for bidding should generally prevail in auctions over all others. IMWED has articulated no basis, for example, to suggest that educators relying on funding from third parties would operate their ITFS stations in a less educationally-useful manner than entities that have bid using solely their own funds. Indeed, from an educational

²³⁶ Compare SDA WTB PN Comments at 1 n.1 with IMWED Comments at 2 n.2. The only major difference is that the Hispanic Information and Telecommunications Network ("HITN") was a member of SDA, but is not a member of IMWED. Significantly, HITN filed comments in response to the *NPRM* that are highly supportive of the Coalition Proposal and do not seek to restrict licensees from utilizing excess capacity lease funding to participate in Commission spectrum auctions.

²³⁷ See Los Angeles Archdiocese Comments at 2 ("Without [lease] revenues and technical assistance from our commercial partner, the Archdiocese would not be able to implement its technology plans and would be forced to eliminate wireless instructional technology from its schools."); New York Archdiocese Comments at 2 (increased usage of ITFS "will be possible only if the Archdiocese can develop the commercial partnerships that will produce both needed revenue and access to new technologies that otherwise would be too expensive for the Archdiocese to acquire on its own."].

perspective, it may well be that bidders on ITFS spectrum who are able to work with others to assemble third-party funds – whether they be from a foundation or other major donor through a grant or contribution, or an investment by a commercial operator interested in future collaboration under an excess capacity lease -- will be able to preserve their operating funds and be in a stronger position to provide valuable educational services on the channels they successfully obtain at auction.

Similarly, allowing an ITFS bidder to use third party funds from prospective excess capacity users should not skew the bidding process in such a way as to result in a winning bidder that is any less likely to utilize the spectrum effectively. Indeed, logically, the existence of a pre-arranged excess capacity plan probably would ensure a timely and efficient activation of both commercial and educational service on the channels. Such effective utilization is, after all, one of the Commission's major goals for the auction process.

Moreover, a rule prohibiting certain types of funding for auction bidders would be difficult to articulate and troublesome and intrusive to account for and enforce. Where is the line drawn between what is "internal" funding and what is "third party" funding? For most educators, funding comes from a variety of sources, some of which may be clearly "internal" (such as appropriated tax proceeds going to a school district), but some of which are not so clearly "internal" or "third party" (such as revenues from vending machines in school cafeterias, or revenues from leasing rooftop space to cellular companies, or revenues from the PTA). Further, at what point does funding that might have been paid to an ITFS licensee at an earlier time under an already existing ITFS capacity agreement lose its "third party" status and become available for supporting an auction bid? What about funds earned previously from or donated by

some other source? Can a charitable contribution, or a government grant, or a foundation grant, given recently but without regard to auction participation, become the bidder's internal funds for the purpose of the auction? If so, given that dollars are fungible, what happens if money coming from a "third party" source is used for traditional instruction (such as buying textbooks or paying teachers' salaries), thus freeing other "internal" funding for auction participation?

The Commission need not, and should not, go down this road. There is no basis related to any valid regulatory goal for the ITFS service to regulate what funds are used for bidding purposes. And there is no reason for the Commission to favor one potential licensee over another, based on the sources of its auction bid funding.

G. The Commission Should Reject IMWED's Proposal That All ITFS Leases Be Filed And That Redaction Of Commercially Sensitive Information Be Prohibited.

The *NPRM* proposes to relieve ITFS licensees of the burden of filing ITFS excess capacity lease agreements with the Commission, so long as they retain copies in their files and make them available to the Commission upon request.²³⁸ That proposal drew substantial support.²³⁹

Indeed, the only naysayer is IMWED, which not only urges the Commission to require the filing of excess capacity agreements, but also would have the Commission ban the current practice under which licensees redact confidential information that does not go to whether the lease comports with the Commission's rules (such as the fees paid by the lessee).²⁴⁰ IMWED

²³⁸ See *NPRM*, 18 FCC Rcd at 19154.

²³⁹ See Coalition Comments at 132; Comments of Catholic Television Network and National ITFS Ass'n, WT Docket No. 03-66, at 16 (filed Sept. 8, 2003).

²⁴⁰ See IMWED Comments at 10.

provides no meaningful explanation as to why every lease, much less the commercially sensitive information regarding leasing fees and other matters contained within the lease, should be made available to the public. Given that the Commission has permitted the redaction of commercially-sensitive information from filed ITFS leases for the past twenty years without any adverse consequences, WCA, NIA and CTN are at a loss to understand how the public would benefit from IMWED's proposal. Significantly, the rules recently adopted in the *Secondary Markets* proceeding do not require either the submission of leases or the disclosure of competitively-sensitive lease terms.²⁴¹ Although the *Further Notice of Proposed Rulemaking* in that proceeding is the appropriate forum for generally addressing the applicability of the new rules and policies to MDS and ITFS, for present purposes IMWED presents no justification for the Commission to adopt a different approach regarding the filing of ITFS excess capacity leases.

H. The Record Supports The Coalition Proposal For Establishing Geographic Service Areas.

The Coalition Proposal's plan for establishing exclusive GSAs was endorsed by virtually all of those commenting on the issue.²⁴² Indeed, the only exception is Stanford, which proposes

²⁴¹ See *Secondary Markets R&O* at ¶¶ 105, 124.

²⁴² See, e.g. Coalition Comments at 58-61; ComSpec Comments at 2; Spectrum Market Comments at App. 1, p. 5; IMWED Comments at 18; HITN Comments at 9-10; SCETV Comments at 6. IMLC agrees with the proposal to create exclusive GSAs based on splitting of the overlap of PSAs, but proposes that the Commission first alter the location of the current 35 mile circular PSAs by ignoring the long-standing center coordinates and instead re-center the PSA at the current transmitter location. IMLC Comments at 11. IMLC provides no explanation of why the Commission should alter the locations of PSA – locations that have been fixed since 1995. As the Commission explained at the time, it was necessary to fix the location of incumbent 35-mile radius circular PSAs prior to the MDS BTA auction in order to provide auction participants certainty as to the territory that they would be permitted to serve following the auction. See *Amendment of Parts 21 and 74 of the Commission's Rules With Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service*, 10 FCC Rcd 9589, 9618 (1995), *recon.*, 10 FCC Rcd 13821, 13827, 13836 (1995). Under the current rules licensees can relocate their transmitter sites anywhere within their PSAs, so long as they meet their interference protection obligations. To cite an extreme example, a licensee could relocate its transmitter 34 miles from the center of its PSA to a site near the PSA border and use a directional antenna oriented towards the center of the PSA to comply with the interference

that the Commission adopt the Coalition proposal for establishing exclusive GSAs for the non-MBS channels, but retain the current 35 mile radius circular PSA for the MBS, even if doing so results in a continuation of overlapping PSAs.²⁴³ However, Stanford does not address, much less refute, the record evidence that these overlaps result in “no man’s land” where neither of the overlapping licensees can effectively provide service.²⁴⁴ Rather than preserve this inefficient approach that maximizes the size of paper service areas but minimizes the size of the areas that can actually be served, creating exclusive GSAs for the MBS has the advantage of allowing services to be more readily provided within the overlap area.

In addition, none of those commenting objected to the proposal by WCA, NIA and CTN to continue protection of MBS transmission against interference at certain ITFS receive sites located outside of a licensee’s new GSA, but within its current PSA.²⁴⁵ WCA, NIA and CTN have demonstrated that the concerns expressed in the *NPRM* over retaining MBS interference

protection rules. *Under IMLC’s proposal, in such a case the PSA would shift 34 miles into territory that the MDS BTA auction winner had purchased (and may today be serving)! While IMLC’s refusal to identify its members makes it impossible for WCA, NIA and CTN to demonstrate by specific example the mischief that adoption of IMLC’s proposal would cause, it is inevitable that adoption of its proposal would result in material encroachments into the service areas auctioned to MDS BTA authorization holders.*

While Oklahoma Western Telephone Company (“Oklahoma Western”) appears to generally support the proposal to “split the football,” it suggests that “the Commission should develop a minimum-size GSA area and then allow licensees to aggregate multiple service areas on a regional and/or national basis.” Oklahoma Western Comments at 4. Certainly, WCA, NIA and CTN agree that licensees should be permitted to aggregate GSAs on a regional or national basis, and believe there is nothing in the Coalition Proposal that would hamper that aggregation. Regarding Oklahoma Western’s proposal for a minimum-size GSA, it appears that Oklahoma Western’s concern is that the Commission not require service over so large an area that smaller entities would be discriminated against. *See id.* WCA, NIA and CTN believe that their proposal for creating GSAs accomplishes the objectives identified by Oklahoma Western.

²⁴³ See Stanford Comments at 20.

²⁴⁴ See *NPRM*, 18 FCC Rcd at 6758, 6850; Initial Coalition Proposal at 21.

²⁴⁵ See Coalition Proposal at 35-36.

protection to this limited group of receive sites do not justify stripping these receive sites of their existing interference protection, and the MDS/ITFS community agrees.²⁴⁶

However, WCA, NIA and CTN do not concur with the proposal by Region 10 to extend protection to receive sites that are outside of a licensee's current PSA.²⁴⁷ What Region 10 misses in its argument for protection of receive sites that are 36.1 and 37.9 miles from their respective transmitters is that under Section 74.903(a)(5), "[n]o receive site more than 35 miles from the transmitter shall be entitled to interference protection." Thus, these receive sites are not entitled to interference protection today, and extending interference protection to them could compound the complexity of, if not preclude, the transition of neighboring markets to the new bandplan. WCA, NIA and CTN submit that there is a fundamental difference between continuing protection of receive sites entitled to that protection today, and extending protection beyond current limits.

I. The Commission Should Adopt The Coalition Proposal's Proposed Treatment Of Grandfathered E And F Group ITFS Licensees.

One party, the Grand MMDS Alliance New York F/P Partnership ("Grand Alliance") filed comments urging the Commission to require grandfathered E and F group ITFS licensees to "transition to high-power facilities on other frequencies, thus permitting the MMDS licensees to

²⁴⁶ See Coalition Comments at 58-61; SCETV Comments at 6.

²⁴⁷ See Region 10 Comments at 9-11. It should be noted that Region 10 is incorrect in suggesting that the Breckinridge Agreement provided for the actual protection of ITFS receive sites that were outside of a licensee's PSA, based on actual location and receive antenna height. See *id.* at 10. To the contrary, the Breckinridge Agreement limited ITFS interference protection to existing PSAs, required interference consents to be given by participants regardless of predicted interference to receive sites antennas mounted more than 30 feet above ground level, and actually reduced the standards used by the Commission to define harmful interference.

use the E and F group channels exclusively for low-power operations.”²⁴⁸ WCA, NIA and CTN oppose this suggestion.

As a threshold matter, it is important for the Commission to recognize the Grand Alliance proposal for what it is – a self-serving effort to advance Grand Alliance’s private interests as the licensee of the MMDS F group channels in New York in a long-standing campaign against the station rights of Trans Video Communications, Inc., the licensee of grandfathered ITFS F group channels in New York. Moreover, Grand Alliance fails to provide any reasoned basis for the Commission to treat grandfathered E and F group ITFS licensees differently than other ITFS licensees to be transitioned under the new rules.

Grand Alliance ignores the fact that grandfathered ITFS licensees have just as much right as other ITFS licensees to maintain their operations and provide service consistent with their FCC authorizations.²⁴⁹ Grand Alliance also ignores the fact that when it obtained the right to construct its MMDS station on the F group in New York, all Grand Alliance received was the right to construct facilities and provide services that would not interfere with existing grandfathered ITFS licensees.²⁵⁰ Thus, when it acquired the F group MMDS channels years ago, Grand Alliance knew, or should have known, that it would have to share the channels with the

²⁴⁸ Grand Alliance Comments at 8.

²⁴⁹ According to the Commission’s database, there appear to be 52 grandfathered E and F group ITFS stations across the country. By their very nature (having been in place and thus “grandfathered” when the FCC reallocated the E and F group channels to MMDS), they tend to be operated by many of the country’s most experienced and effective ITFS licensees, such as South Carolina Educational Television Commission, Stanford University, the Catholic Bishop of Chicago, California State University, the University of California, Illinois Institute of Technology, and George Washington University.

²⁵⁰ *Amendment of Parts 2, 21, 74 and 94 of the Commission’s Rules and Regulations in Regard to Frequency Allocation to the Instructional Television Fixed Service, the Multipoint Distribution Service, and the Private Operational Fixed Microwave Service*, 94 FCC 2d 1203, 1206-07 (1983)[“ITFS Reallocation Order”].

grandfathered F group ITFS licensee in the area. Now, however, Grand Alliance wants to position its facility as the only one to receive spectrum rights under the new band plan and transition process, when quite obviously it has no claim to such exclusivity.

In the Coalition Proposal, WCA, NIA, and CTN urged the Commission to eliminate the current policy of restricting ITFS technical changes for grandfathered E and F group ITFS stations.²⁵¹ The intention of WCA, NIA and CTN was not to favor grandfathered ITFS stations over MMDS stations, but to recognize that where both ITFS and MMDS stations exist on these channels, they must be treated fairly and pragmatically. For example, ITFS and MMDS stations may have protected service areas that overlap and therefore need to be converted to exclusive GSA's in a manner similar to the overlap between two ITFS or two MMDS stations. Under the current rules, the Commission already has defined the "protection" relationship between grandfathered ITFS and MMDS stations.²⁵² However, going forward, these stations must transition to the new band plan and technical rules just as other ITFS and MMDS stations must do. This is an even-handed approach that permits the transition to occur without forfeiture of any party's rights. Grand Alliance's proposal, however, seeks to advantage MMDS stations at the expense of grandfathered ITFS stations.²⁵³

²⁵¹ Initial Coalition Proposal at 51.

²⁵² See *ITFS Reallocation Order*, 94 FCC 2d at 1206-07.

²⁵³ Grand Alliance suggests that a "reasonable compromise" would be to have the grandfathered ITFS station operate on the high power channel allocated to the group after transition, leaving the MMDS licensee unrestricted access to the other three low power channels. Grand Alliance Comments at 8. WCA, NIA and CTN believe that the Coalition Proposal provides the only fair compromise: establishing exclusive GSAs for both the MMDS and ITFS stations based on their currently authorized PSAs, and allowing both to use all their frequencies within their geographically exclusive service areas.

Grand Alliance goes on to suggest that ITFS licensees on grandfathered E and F channels “should not be accorded any new rights to additional protection (including any new receive sites) or, as suggested by the Coalition, have the technical (or other) restrictions on their grandfathered operations lifted.”²⁵⁴ Clearly, this argument makes no sense in the context of the Coalition Proposal. Under the Coalition Proposal, as under the Commission’s existing rules, the protection of all ITFS stations is determined with reference to their protected service areas. The whole intention of the Coalition Proposal, even for MBS channels, is geographic protection, not individual site protection. And, the area of protection for grandfathered E and F group ITFS stations will generally be reduced, not expanded, as PSAs are converted to exclusive GSAs.

Finally, prohibiting grandfathered ITFS stations from converting to new, compliant technical facilities would be unthinkable folly – the result would be that grandfathered, high power, high site transmission facilities would be frozen in place, disrupting implementation of the new bandplan forever. The Coalition Proposal never intended to impose new restrictions on grandfathered ITFS stations, as Grand Alliance appears to propose. Rather, grandfathered ITFS stations should be transitioned to the new band plan equitably in keeping with their existing spectrum rights, neither to the detriment nor benefit of co-channel MMDS stations.

IX. CONCLUSION

With the close of the pleading cycle on the *NPRM*, the Coalition Proposal has now withstood public scrutiny for the second time. It has proven to be the most effective and efficient vehicle for rapidly introducing the widest variety of fixed, portable and mobile commercial and educational services into the 2.5 GHz band, while reasonably maintaining the ability of licensees

²⁵⁴ *Id.* at 9.

to continue most valuable existing uses. As such, WCA, NIA and CTN urge the Commission to adopt final rules in this proceeding in accordance with the suggestions advanced in the Coalition Proposal and their comments and reply comments in this proceeding.

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